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The Shared-Time Concept project was one of several conducted under a grant for a developmental vocational education research and teacher education program based on a clinical school concept. The objectives were (1) to determine the extent and nature of use of the shared-time concept for conducting vocational education programs, and (2) to develop some administrative guidelines for establishing shared-time programs. Activities included data gathering and analyzing, leadership development activities, and dissemination. This document is the third of a four-part series and contains eight papers, one of which contains an analysis and summary of data regarding practices used in 70 schools which reported on their programs. Other topics include: (1) Status of Selected Area Vocational Education Programs in Michigan, (2) Reports on Area Vocational Education Programs Serving Rural Areas, Rural-Urban Areas and Metropolitan Areas, and (3) A Report on Observation of Selected Area Programs in Ohio. Other documents in this series are: Community Factors (VT 008 390), Considerations for Curriculum Development (VT 008 392), and Financing and Administering Area Programs (VT 003 391). A final report is available as ED 019 513. (MM)

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In Vocational-Technical Education

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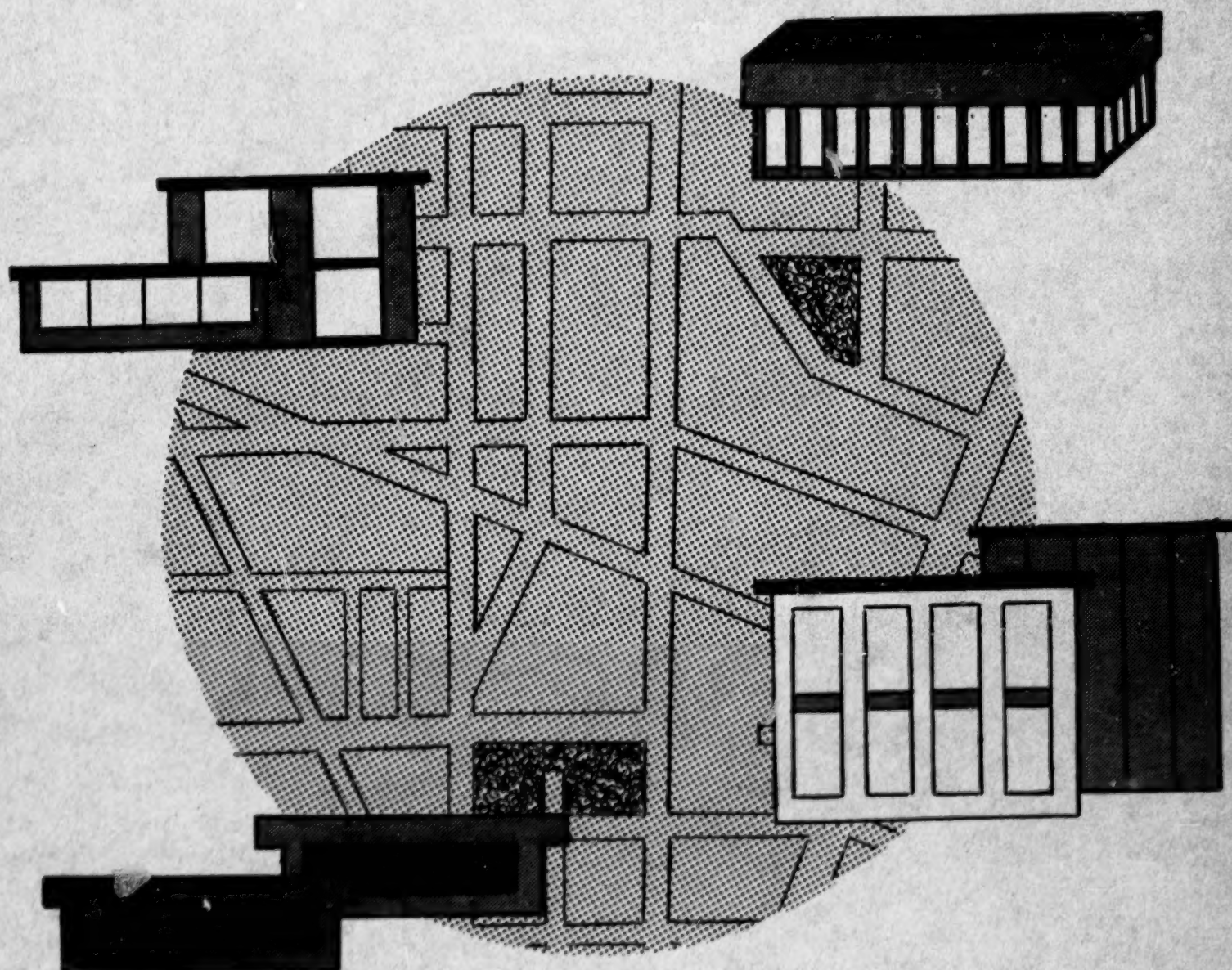
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Department of Secondary Education and Curriculum

East Lansing, Michigan

College of Education

Michigan State University



Shared-Time Concept for Area Vocational Education Programs

•Practices and Procedures

Part 3 of a Four-Part Series

VT008389



RESEARCH & DEVELOPMENT PROGRAM
In Vocational-Technical Education

Project Report No. 3

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Part 3 of a Four-Part Series:

SHARED-TIME CONCEPT FOR AREA VOCATIONAL EDUCATION PROGRAMS ,

• PRACTICES AND PROCEDURES ,

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Department of Secondary Education and Curriculum
College of Education
Michigan State University
East Lansing.
January, 1969

FOREWORD

"Shared-time" is a familiar concept in education. Between a number of public and private schools throughout the nation there are some cooperative arrangements whereby facilities for specialized education programs are "shared". Students in such participating schools have as it were "dual enrollment", but at the same time maintain their identity with the "home" school. The objectives of the "shared-time" project are: (1) to survey the existing shared-time programs with specific reference to "vocational" education, (2) to develop working principles for such programs, and (3) to disseminate information concerning the programs.

In pursuance of the latter objectives summer workshops were conducted. To these were invited persons recognized for their competence in fields related to general and vocational education. Some of these participants were engaged in the organization and administration of "shared-time" programs for vocational education. Thus, the workshops provided opportunities for sharing rich ideas and valuable experiences.

It is part of the design of the project to publish from time to time the reports of these workshops and conferences.

Two such workshops have been held, one in the summer, 1966, and one in the summer, 1967. This present publication is one of a series of four based on some of the addresses and discussions from these meetings, and on papers specially written by the project leader, and others. The series includes:

1. Community Factors
2. Considerations for Curriculum Development
3. Practices and Procedures
4. Financing and Administering Area Programs

Undoubtedly there are problems in the organization and administration of shared-time programs in vocational education. But these problems are not insurmountable. It appears that the advantages far outweigh the difficulties. The following pages will show that such programs form one of the most effective schemes for providing "comprehensive" education for the modern high school youth. For the rural district, the shared-time concept is particularly appropriate.

Our thanks is extended to the individuals who have shared with us their ideas and experiences. We trust that those that have adopted the scheme and those that plan to experiment with it will gain from a perusal of these pages.

O. Donald Meaders
Abel Ekpo-ufot

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SOME PRACTICES USED TO CONDUCT AREA VOCATIONAL
EDUCATION PROGRAMS UNDER THE SHARED-TIME CONCEPT*

The need for expansion and improvement of occupational education programs has been a topic of concern to many people for many years. Increased attention has been given to the need throughout the decade of the 60's as evidenced by various studies and legislation at the national and state levels. This attention has been expressed in two major dimensions: the requirements of society for qualified workers to fill the professional, technical and skilled-labor positions in government, business, industry and farming; and the requirements of all citizens to be able to develop their potential and to become self-fulfilling, contributing members of their families and communities.

COOPERATIVE EFFORTS SUGGESTED

Effective vocational education programs have been conducted by many public schools throughout the United States for many years. Such programs have been instrumental in helping youth and adults achieve satisfactory placement in the world of work. However, the total number of programs available has been too limited -- not enough schools offering vocational education programs, and too few occupations for which vocational education programs are being offered. The major reasons given for the too limited offerings in vocational education programs and too few schools offering programs are: (a) small enrollments in the schools, (b) high cost of the facilities and equipment for the programs, (c) lack of qualified teachers, and (d) lack of dollars to establish and operate effective programs.

Two kinds of cooperative arrangements are frequently suggested as means for improving and extending vocational education. The first kind, focuses on cooperation between employers and the schools. Such arrangements presume the availability of work stations through employers in agriculture, business, industry and government. Undoubtedly much more can be done in many communities than is now being done to expand and strengthen vocational education through this means.

The second kind, focuses on cooperative arrangements among the various educational institutions serving a given area. This may mean systematic, planned arrangements between public and non-public schools; between high schools within a large district; between high schools and a community college; among several high schools, both public and non-public, serving a particular area; or some other combination of schools working together. It is this

* Written by Dr. O. Donald Meaders, Associate Professor, Department of Secondary Education and Curriculum, College of Education, Michigan State University. A questionnaire returned by 70 schools conducting area vocational education programs became a major source of data regarding practices being used.

second kind of cooperative arrangement which has been the center of attention for the Shared-Time Project during the past three years.*

SHARED-TIME CONCEPT DEFINED

The shared-time concept refers to enrollment by students in two schools, either two public schools or one public and one private. The students maintain identification with both schools. The students travel, by some means, from one school to the other. The students are enrolled in classes at both schools although the amount of time and kinds of classes taken at each school may vary quite widely.

When applied to the area of vocational education, the shared-time concept refers to the arrangements whereby the students from a given school go to another school for a portion of their school day for the purpose of receiving specialized instruction in an occupational field. The students maintain their identification with the home school and participate in co-curricular activities at the home high school.

The area vocational education program, when operated on the shared-time concept, is considered part of the program of the home high school -- a department of the home school. Ideally, as a department of the home high school it helps the home high school achieve more comprehensive curricula.

SOURCE OF DATA ABOUT VOCATIONAL EDUCATION PROGRAMS OPERATED UNDER SHARED-TIME CONCEPT

As a means of learning more about the practices used to operate area vocational education programs, all state directors of vocational education were contacted by letter during the fall of 1965 to determine the name and location of all area vocational education programs in their states using the shared-time concept. A questionnaire was sent to the person in charge of each of the more than 140 schools identified by the state directors of vocational education. The responses from seventy schools were considered usable from the viewpoint of having programs which could be classified as fitting the shared-time concept.**

* This project was conducted as Project 501 under Contract OE 5-85-111. The Shared-Time Project was one of several projects in a developmental vocational-technical education and teacher education program based on a clinical school concept. A previous report on the project was published in 1967 under the title Shared-Time (Dual Enrollment) Concept for Area Vocational Education Programs. East Lansing, Michigan: Research and Development Program in Vocational-Technical Education, Department of Secondary Education and Curriculum, College of Education, Michigan State University, 15pp.

**For additional information about the number of responses by states and a copy of the questionnaire, see the report mentioned in the above footnote.

FINDINGS FROM THE NATION-WIDE SURVEY

Some schools have been involved for many years in conducting area vocational education programs under the shared-time concept, but the numbers of students involved has been relatively small. A study conducted by the N.E.A. in 1963-64 reported less than 15,000 students identified as being enrolled in industrial arts and vocational education programs under "shared-time" arrangements.* In the present study nearly 26,000 students were reported to be enrolled in the shared-time vocational education programs. More than one-half of these students were identified as belonging to the central schools and most of the students were from other public schools. Approximately one percent (311 students) of the students were reported to be from non-public schools.

Participating Schools and School Districts

There were 532 public schools and 38 non-public schools reported to be participating in area vocational educational programs under the shared-time concept. These high schools were located in 292 school districts, which had K-12 enrollment of about 1.1 million students during 1965-66. The seventy reporting school systems ranged widely in size as indicated below.

<u>Pupils (K-12) in Reporting School System</u>	<u>Number of School Systems</u>
Less than 1,200	16
1,200 - 2,399	2
2,400 - 4,799	14
4,800 - 9,999	8
10,000 - 49,999	13
50,000 - 99,999	2
100,000 or more	4
No response	11

About three out of every five of the seventy reporting school systems had less than 4,000 students in grades K-12. Nearly one out of every three reported an enrollment of less than 600 pupils in grades K-12. Although the receiving school for students in the shared-time concept program was typically a small school, four of the 70 schools reported K-12 enrollments of 100,000 or more.

* Shared-Time Programs: An Exploratory Study, Research Report 1964-R10. Washington, D.C.: Research Division, National Education Association, April, 1964. The focus of the study by the N.E.A. was on the arrangements for educational programs between public and non-public schools. Students going from one public school to another public school, participating in a shared-time concept program, were excluded from the N.E.A. study.

Location of Facilities

Usually, the facilities for the area vocational education programs were provided at one central site. About 61 percent reported the use of decentralized facilities at two or more sites.

Administrative Structure for Operation

Regular high school districts and county school districts were the most frequently reported administrative units for operating area vocational education programs through use of the shared-time concept. The legality of various alternatives differ from state to state but 80 percent of the 70 reporting units indicated either the regular high school district or the county district was the administrative unit, as shown below:

<u>Administrative Structure</u>	<u>Percent (N = 70)</u>
Program is administered through a public post-high school institution (such as community college, junior college, technical institute, etc.)	4
Program is administered through a regular high school district	50
Program is administered through an intermediate or county school district	30
Program is administered through a state school located to serve a sub-area of the state	4
Other	10
No response	2

Population Density of Area Served

The largest number of schools which reported were in rural-urban areas, although rural areas and urban areas were also represented. The definitions used for identifying the areas and the proportion of the reporting schools in each category were as follows:

<u>Type of Area from Which Students Come</u>	<u>Percent (N = 70)</u>
Metropolitan: encompassing a major population center, but not including a rural area	11
Mainly urban area with some rural areas, but including population centers in excess of 25,000	21
Mainly urban and rural not including any population center in excess of 25,000	43
Mainly rural (towns with population of 2,500 or less) including both farm and non-farm youth	19
Other	6

Student Transportation

About four out of every five of the reporting schools indicated transportation was provided for some or all of the students to participate in the shared-time area vocational education program. The remainder of the schools reported transportation was provided for none of the students to participate in the area vocational education program.

More than one-third of the schools reported students traveled 20 or more miles to participate in the area vocational education program.

<u>Distance to Boundary of Service Area</u>	<u>Percent (N = 70)</u>
Less than five mile radius	10
5-10 mile radius	17
10-15 mile radius	14
15-20 mile radius	13
Over 20 mile radius	36
No response	10

The distance traveled may not be the major criterion measure which should be used. Due to the variation in road conditions, a better measure may be the length of time required to be enroute daily to and from school. The length of time to travel five miles within an urban area may be greater than the time required to travel 15 miles in a rural area. On the other hand, topographical features may make the time to travel 15 miles in one area equal to the time required to travel 25-30 miles in another area.

Arrangements for Program

Scheduling of classes, amount of time spent by students in the area center, courses taken in receiving school, and responsibilities for the guidance and counseling function are some of the areas for consideration when attempting to develop an area vocational education program.

About three out of every five of the responding schools reported daily class schedules had not been adjusted so that the beginning and ending of periods would be similar in all schools. Only twenty-two of the seventy responding schools reported in the affirmative regarding the adjustment of the daily class schedule so as to have uniformity for beginning and ending of the periods.

More than sixty percent of the schools indicated the students spent more than two periods per day, five days per week in the receiving center. The exact length of periods was not determined. The time patterns to which they responded were as follows:

<u>Time Pattern for Students in Receiving School</u>	<u>Percent (N = 70)</u>
Two periods per day, five days per week	17
More than two periods per day, five days per week	54
Full day, five days per week	7
Full day, two days per week	0
Other patterns	20
No response	2

The students usually take their general education courses such as English, mathematics and social studies at their home high school. About 75 percent of the students were reported to take only their vocational courses at the central, or receiving school, while the other 25 percent also took "related instruction" courses at the receiving school.

The guidance and counseling function, though complex and very critical to the success or failure of an area vocational education program, was viewed through four questions:

1. How are students in the sending schools informed about the courses (or programs) available?

2. In what way, if any, are the parents of students in the sending schools involved in the process of informing the students?
3. What is the role of the receiving school in relation to selection of students to participate in the shared-time program?
4. What is the role of the sending school in relation to selection of students to participate in the shared-time program?

Counselors were used as a primary source of information to students about courses and programs available at the area center. The larger school systems in the metropolitan, urban and urban-rural areas used more written communications than did the smaller school systems in the mainly rural areas. The smaller schools more frequently utilized administrative personnel, home visits, and visits by students to the central schools.

Several practices were utilized to involve the parents in the process of informing students. These practices included parent nights, meetings with parents, special mailings to parents, newspaper releases, and signatures of parents on registration materials. A large number of schools indicated very little or no involvement of parents. Many of the large schools involved parents primarily through their signature on registration materials and report cards. It appeared that fewer deliberate efforts were made by the larger schools to communicate directly (especially in face-to-face situations) with the parents.

Considerable variation was noted in the reported roles for sending and receiving schools regarding the selection of students. The receiving schools which were part of large school systems frequently reported their roles to be very passive, often taking no active role in the selection of students. The greater the number of school districts involved in sending students to the central school, the more likely it appeared that the receiving school had established written criteria for the selection of students. The extent to which personnel from the sending schools had been involved in the development of the criteria was not clear.*

The sending schools in the larger school districts appeared to do the entire task of selecting the students to participate at the receiving school. The small sending schools were reported to have considerable authority to recommend students.

* The practices utilized to perform the guidance and counseling function were either not clearly defined at many of the schools, or the instrument used to gather the data was not adequate to identify the practices. Personal observations at several schools and discussions with directors and teachers from many area vocational schools has led the author to conclude that the guidance and counseling function is one of the most critical for major improvements in vocational education. Professionals in the field of guidance and counseling indicate considerable variation in the theories held regarding vocational development, career choice and career planning by students. This is reflected in the rather pragmatic approach to the determination of practices used under the label of "guidance and counseling".

Student Participation in Extra-Curricular Activities

More than 90 percent of the reporting schools indicated the students participate in extra-curricular activities at the home school. Four schools reported some participation in extra-curricular activities at the receiving school by students from the sending school.

Courses Offered at Receiving Schools

Many courses were offered at the receiving schools, and there was much variation in the names or titles of the courses. The many courses reported were identified under 113 titles and these in turn, were each classified under one of nine occupational categories. The occupational categories were agriculture, homemaking, health, office, distribution, and industrial. The industrial category was sub-divided into courses for four occupational areas: service, building trades, graphic arts and manufacturing. More than 60 percent of the courses and 66 percent of the student enrollment were in the four industrial occupational areas, as shown in Table 1. Most of the students enrolled were at the 11th or 12th grade level, but some (approximately 10 percent) were reported at the 10th grade level.

TABLE 1

Vocational Course Areas and Enrollments Reported Under Shared-Time Concept, 1965-66*

Occupational Areas	Number		Enrollment			Total**
	Courses	Schools	10th Grade	11th Grade	12th Grade	
Agriculture	7	27	151	519	232	1123
Homemaking	6	15	192	274	229	881
Health	6	18	0	262	246	630
Office	17	24	653	1261	1325	3399
Distributive	5	17	28	422	820	1309
Industrial:						
Service	38	60	588	2998	2766	7827
Building Trades	11	43	319	913	684	2341
Graphic Arts	6	14	12	133	126	330
Manufacturing	16	51	268	1212	1321	3460
Total	113	70	2211	7994	7749	21300

* Data taken from questionnaires returned by seventy schools during the spring of 1966.

**Enrollment data for some schools were not reported by grade level; and some schools failed to report enrollment data by course or occupational area.

Enrollment in Courses

The average enrollment per school in the various vocational course areas is reported in Table 2.

TABLE 2
Average Enrollment Per School in Vocational Course Areas

Occupational/Course Areas*	Number Schools	Average Total Enrollment Per School	Occupational/Course Areas	Number Schools	Average Total Enrollment Per School
AGRICULTURE			INDUSTRIAL -- SERVICE		
Vocational Agr. I & II	20	33	Radio/TV Repair	11	26
Agricultural Mechanics	3	27	Technical Electronics I & II	27	37
Floriculture	1	10	Refrig./Air Cond., Beg.	8	29
Horticulture	4	28	Refrig./Air Cond., Adv.	2	7
Landscaping	3	20	Electronic Assembly	2	16
Landscape Maintenance	1	20	Maintenance Mechanics & General Repair	2	27
Conservation and Forestry	3	31	Household Appliance Repair	6	14
HOME MAKING			Watch Repair	1	3
Homemaking	7	109	Food Service	6	23
Dressmaking	2	25	Baker	1	15
Commercial Clothing	1	40	Cooking and Baking	3	20
Garment Industry	1	35	Cosmetology I & II	23	69
Household Technician/Domestic Skills	3	13	Auto Painting	1	5
Clothing and Fashion Design	2	32	Body & Fender Work	16	31
HEALTH			Auto Service Station Mechanic	2	20
Practical Nursing	12	36	Auto Mechanic I	52	45
Nurse Assistant/Hospital Aide	3	27	Auto Mechanic II	2	10
Health Services	1	22	Auto Tune-up	1	11
Care of Infirm/Invalid	1	20	Engine Repair	1	10
Dental Assistant	1	15	Auto Chassis	1	11
Practical Nurse (Hospital Experience)	1	18	Diesel Mechanics	4	24
OFFICE			Small Gasoline and Marine Engines	4	25
Vocational Office	4	62	Internal Combustion Engines	3	38
Typing	2	531	Aircraft Maintenance	3	61
Shorthand/Voc. Steno.	3	73	Aircraft Power Plant	4	28
Clerical/Office Practice	6	25	General Mechanics	2	26
Office/Business Machines	4	50	Power Equipment	1	17
Sec./Stenographer Training	7	44	Power Mechanics	3	26
Office Procedures for Data Processing	5	38	Industrial Co-op	3	77
Filing	1	233	Diversified Occupational Co-op	3	87
Business Mathematics	1	49	Industrial Arts II	1	1
Record Keeping	1	16	Dry Cleaning	1	35
Bookkeeping/Accounting	6	79	Television Service	2	28
Technical Secretary	1	8	Aircraft Frames	1	19
Computer Systems	1	33	Building Maintenance	1	20
Business	1	18	Barbering	1	30
Office Co-op	3	38	Communications -- Rad	1	12
Key Punch	1	43	Communications -- Rail	1	22
Machine Accounting	1	40	INDUSTRIAL -- BUILDING TRADES		
INDUSTRIAL -- MANUFACTURING			Carpentry Trades/Construction	50	87
Beg. Machine Shop	10	37	Carpentry -- Cabinet	8	25
Adv. Machine Shop	1	14	Millwork	1	38
Machine Shop Math.	1	42	Electricity I	15	30
Machine Shop Safety	1	42	Electricity II	1	15
Drawing -- Technical			Industrial Electricity	7	25
Drafting	24	32	Masonry	3	38
Blueprint Reading	1	42	Sheet Metal	10	24
Architectural Drafting	4	39	Painting	3	26
Welding	21	26	Plumbing	2	29
Electrical Welding	1	42	Residential Development	1	40
Oxy-acetylene Welding	1	42	INDUSTRIAL -- GRAPHIC ARTS		
Machine Tools	5	27	Graphic Arts	2	20
Tool Design Technology	3	14	Printing Trades	7	14
Mechanical Design & Construction	1	60	Commercial Art	6	25
Upholstery, Furniture	1	7	Offset Printing	2	18
Upholstery, Auto	1	6	Photography	1	3
Metal Fabrication	1	27	Interior Decoration	1	6
DISTRIBUTIVE AND MARKETING					
Retail Methods I & II	12	70			
Introduction to Retailing	1	60			
Advanced Retail Prac.	1	34			
D.I. Co-op	7	51			
Gas Station Attendant	1	25			

SOURCE: Questionnaires completed by 70 schools operating area vocational education programs. Data based on 1965-66 school year.

* Course titles and clustering were based on the information provided by the schools. There may have been some duplication of instructional content under different course titles at some schools; also, the same course titles were no guarantee of similar content.

The ten course areas in which the largest number of students were enrolled, and the average enrollment per school for those courses were as follows:

<u>Course Area</u>	<u>Number of Area Centers Reporting</u>	<u>Total Number of Students Enrolled</u>	<u>Average Total Enrollment Per School</u>
Auto Mechanics I	52	2267	45
Cosmetology I & II	23	1591	69
Beg. Machine Shop	40	1490	37
Typing	2	1061	531
Technical Electronics I & II	27	986	37
Carpentry Trades/Construction	30	952	32
Retail Methods I & II	12	835	70
Drawing -- Tech. Drafting	24	765	32
Voc. Agriculture I & II	20	690	33
Homemaking	7	654	109

Enrollment in Courses for Agricultural Occupations

Seven course areas for agricultural occupations were reported with the enrollment in these courses representing about five percent of the total enrollment reported from the 70 schools. More than three out of every five of the students in agricultural courses at the area centers were in courses labeled "Vocational Agriculture I and II"; twelve percent were in "Agricultural Mechanics"; eighteen percent were in "Horticulture," "Landscaping," "Landscape Maintenance" and "Floriculture"; and eight percent were in "Conservation and Forestry".

The average total enrollment in courses for agricultural occupations ranged from 12 to 33. This included students from grades 10, 11 and 12. The data were not reported so as to indicate enrollment by separate classes. In other words, the average enrollment of 33 students in "Vocational Agriculture I & II" at the 20 schools which reported students in this course area, may have been in one or more classes, and may have been under the supervision of one or more teachers. The average total enrollment for the various agricultural courses, and other courses, is shown in Table 2.

Enrollment in Courses for Homemaking Occupations

Six course areas for homemaking occupations were identified. Three out of every four students in these course areas were enrolled in the course "Homemaking". There was an average of 109 students per school enrolled in this course area. Some other course areas such as "Food Service", "Baker", "Cooking and Baking", and "Cosmetology I & II" were listed under the industrial service occupations. These four course areas plus the other six listed under homemaking occupations could be classified as preparation for wage-earning occupations outside of the home.

Enrollment in Courses for Health Occupations

About seven out of every ten students in the six courses for health occupations were enrolled in "Practical Nursing" and "Practical Nursing (Hospital Experience)".

Enrollment in Courses for Office Occupations

About three out of every 10 students in the courses for office occupations were enrolled in "typing". Since only two of the seventy schools reported enrollment in this course area, it appears that "typing" was usually offered to students at the home high school rather than through the area center. The average enrollment per school in the courses for office occupations ranged from 8 to 531 with most of the course areas having an enrollment of more than 35 students.

Enrollment in Courses for Distributive and Marketing Occupations

About 64 percent of the 1309 students in the D.E. courses were in the course area identified as "Retail Methods I & II". The average enrollment per school in the five course areas ranged from 25 to 70, with the highest in the "Retail Methods I & II".

Enrollment in Courses for Industrial Occupations

There were eight course areas with a total enrollment of more than 500 students per course area. There was a wide range in the average enrollment per school in the various course areas, as shown in Figure 1.

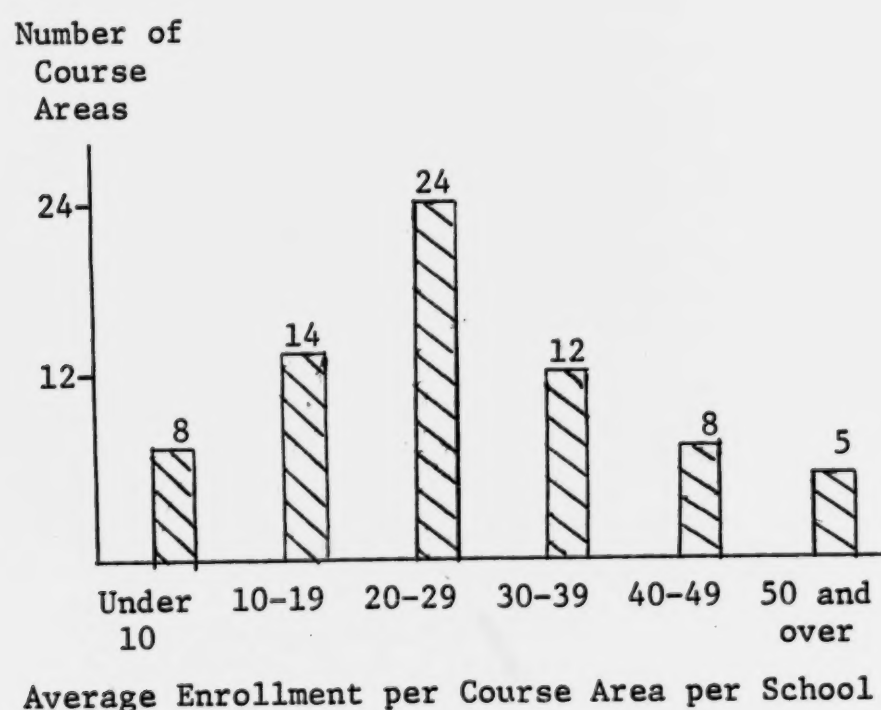


Figure 1

Frequency of Various Size Average Enrollment per School for Industrial Course Areas

The most frequent average enrollment per school for an industrial course area was 20-29. Although there were a large number of course areas identified, most of the schools offered no more than ten industrial course areas.

SUMMARY

Cooperative arrangements among public schools to provide vocational education under the shared-time concept have been implemented in at least 70 areas throughout the United States. Usually, these arrangements have involved only public schools, but in several instances non-public schools have participated in the programs.

In this study, the administrative unit for the area vocational education program was usually a public K-12 district or the county (intermediate) school district. Community colleges, or junior colleges, were identified as the administrative units for the area vocational education programs in only a few cases.

The shared-time concept for area vocational education programs was frequently implemented without having all cooperating schools first adopt a uniform daily schedule. Flexibility seemed to be a characteristic of the arrangements on the part of both the sending and receiving school.

Transportation was usually provided for the students to the same extent it was provided for all students to attend school. The distance traveled by the students appeared to be of less concern than the amount of time spent traveling to and from schools.

The scheduling arrangements usually provided for the students to spend approximately one-half day, five days per week at the area center.

The practices for selection of students for the area vocational education program, and the selection by students of course offerings at the area center, appeared to be less well defined than some of the other practices. Who should be enrolled in the courses, the courses which should be provided for the students, the extent to which parents and other members of the community should be directly involved, the extent and nature of placement and follow-up of the students -- these were not clearly identified by the practices reported.

There were many course areas offered through the area centers. In general, the course areas for industrial occupations were most frequently reported and the largest number of students were enrolled in the industrial courses.

The titles given to the courses were found to be quite varied. The lack of uniform titles seemed to imply a high degree of local responsibility for development of both the courses and the curricula for the area vocational education programs.

The multiplicity of course titles makes summarization of enrollments very difficult and not as accurate as might be desired.

The shared-time concept appears to be a satisfactory basis for operation of many area vocational education programs. The data available indicate some program expansion and development has taken place within large school districts some utilizing the shared-time concept (instead of the separate vocational school concept). Cooperative arrangements have been developed not only within school districts but among several school districts in urban and rural areas. Such arrangements have included both public and non-public schools.

The next few years should be viewed as a testing period for this concept. The use of the concept may lead to school district reorganization and/or consolidation in some areas; it may lead to cooperative arrangements for courses in other curricular areas such as music, mathematics, chemistry and foreign languages. Finally, it may be the means for making improvement in the educational program for both youth and adults.

STATUS OF SELECTED AREA VOCATIONAL PROGRAMS IN MICHIGAN
USING THE SHARED-TIME CONCEPT*

INTRODUCTION

(Chairman)

We thought that it would be important to include some reports from people that are actively involved in area program development in various regions of the state. It is important to recognize the diverse situations in our state, and make room for variety in area program development. The State Department of Education policy statement includes alternatives, so that you at the local level can put together the combinations that work best in your area.

The speakers on our program represent different organizational patterns. We asked them to share with you their philosophy and some of the community factors that have been important to the selection and development of organizational patterns for the area programs in their respective regions of the state. One can gain a great deal from making comparisons, recognizing that they do represent different regions of the state -- some very sparsely, others very densely populated; some with large school districts; others with a combination of sizes. These various factors affect an area's decision making process.

Our first speaker is David Soule, Oakland Intermediate District Vocational Consultant. He has been very active in the area study and in the implementation of study findings which led to the successful vote at the annual school election for the establishment of the program in Oakland County. This county is densely populated and right on the fringes of dynamic growth. In many parts of the state the situation might be similar. I would like to turn the program over to Dave Soule.

THE OAKLAND INTERMEDIATE DISTRICT AREA PROGRAM

David Soule

Thanks Bob. As you are well aware, Oakland County has approximately a quarter of a million children in the twenty-eight districts -- about 50

* Based on a panel discussion at a workshop conducted by Michigan State University during the summer of 1967. Chairman of the panel was Robert Pangman, Consultant, Area Vocational Education Program Development, Michigan Department of Education, Lansing, Michigan. Panel members included: Dr. David Soule, Vocational Consultant, Oakland Schools; Russell Maples, Director of Vocational Education, Lansing Public Schools; and Harold Matthews, Dean, Vocational-Technical Education, Jackson County Community College.

thousand of them in the twenty-eight high schools. Two years ago we decided to look at vocational education. The concern of the superintendents was that there were some students that were not receiving comprehensive offerings of vocational education. Let me point out that in the southeastern quadrant of the county we have a number of vocational programs, and a number of directors. There are eleven directors in the county and the majority are located in this particular geographic area. What they have to offer is good -- there is no question about this. But, outside of the two or three large districts, we run into this problem of comprehensiveness again.

Obviously, depending on the financial limitations, you cannot offer everything for all students. Let me address myself to the area vocational program envisioned. Really, what it boils down to is that in the area program concept, superintendents wanted a program that would be accessible to all students in the county. We have over 900 square miles of area, and 28 individual school districts in the Oakland Schools constituency. We provide for all types of students -- from the student that has a learning difficulty -- a special education student if you please, to the student that the community prides itself with. The responsibility for managing these area schools will rest with the local administrators. This is in line with the belief that the intermediate district cannot operate vocational education programs. The responsibility for transportation will rest with the local district.

It took hard bargaining for everyone to accept the area concept. But eventually it was adopted in a referendum at the annual school election. The organizational pattern includes a contractual agreement between the intermediate district and the local boards of education. Four area schools are proposed in different quadrants of the county. In addition to craft committees, there are two other advisory committees. One is the traditional general advisory committee or executive advisory committee composed of representatives from business, industry, and labor; the other is an advisory committee composed of local superintendents. These two committees are advisory at the intermediate level.

One big problem concerns community involvement. Here we have both ends of a continuum: there is the superintendent that says, "I cannot support you formally because my board of education did not accept the area program concept, but I will do everything I can to help you."; and there is another that will give no support "no matter what". In an effort to involve and educate the people, we produced a little brochure; about 125,000 were printed, and we distributed over 124,000. We started at the institutional level and we involved people that were actively engaged with schools in various capacities. This, I think, was the one factor that helped pass our one-half mill levy.

There are some basic philosophies under which we operate. Each individual district is largely responsible for running the program in its area. But cooperation is maintained with the community college -- especially in matters relating to course offerings, which include "special education" as well as the traditional vocational and pre-technical programs. In finance, the "pay-as-you-go" principle is preferred to bonding.

We plan to have our first two facilities operational by 1969, and the third and fourth the following year. Eventually our plan is to have a number of small facilities around the county rather than two or three large ones centrally located. As you know our concentration of population is in the southeast. Here we have our best and most sophisticated vocational programs. Up in the northwest is primarily a rural area. There is very little vocational education there. An advisory committee is being formed, which will plan two, three or four facilities around the county.

Special education is our pattern. It has worked successfully in Oakland County because the responsibility for operating the program is with the local districts under the guidance of a director. We do not anticipate administration of facilities from the intermediate office, and right now superintendents are deliberating as to which direction we have to direct our major thrust. I think our thrust will be in areas where we can gain the most value for our dollar.

The plan we have adopted is not the best for all areas of the state; but it meets our needs. It will open up facilities for students, and those people who had no such opportunities when they graduated, are to be incorporated in a retraining program. Thank you for your attention.

THE LANSING PUBLIC SCHOOLS AREA PROGRAM

Russell Maples

(Chairman) I would like to call now on Russell Maples our second speaker. Russ is the Director of Vocational Education in the Lansing school system. The Lansing school system is now a second class district. Both first and second class districts are designated as districts to operate area programs. A large district has many problems, but I am sure that Russ will indicate to us that there are ways around these problems. Russ with no further ado I will turn it over to you.

Thank you Bob. One of our problems in vocational education has been to decide where to start. Lansing being a school system of second class rank has some problems that are unique, and I am going to relate to you how we have incorporated the shared-time program within this unique structure so that each school building within the district is able to make use of the available facilities. The simple counseling brochure that we use shows the different offerings of the T & I area; these are open to all youngsters, but require shared-time efforts. To show you how this shared-time principle has evolved, I'd like to start with how the school system in Lansing has evolved from a single school into a multiple school unit by building a number of senior high schools.

Financial considerations make the idea of the comprehensive high school not very attractive to us. In its original development, Lansing had a single central high school. Now there are three, and a fourth is in the planning stages. We have found it necessary to support the concept of a comprehensive district rather than a comprehensive high school. In many areas we could

think of comprehensive instruction, but in a high cost area "shared-time" instruction is preferable.

Let me expand. Comprehensive occupational education implies a broad spectrum of programs which provide training not only for the T & I area, but also the services area, and distributive and office education. The cost factor makes it prohibitive to support three automotive programs sufficiently equipped to provide adequate training for the students to have entry level skills and be employable when they complete the program. We would like to believe also that these youngsters can go on to higher education at a community college or a four-year college -- if they so wish. This is why we start at the elementary level to inform the youngster of the available occupational programs at the senior high level. Moreover, to offset a built-in fear we make clear to his parents that opportunities for further education are still open to the youngster at the completion of our program.

One of our problems concerns transporting students from one section of the city to another. The intermediate district or small school districts that are developing area concepts have a similar problem, but of a different degree. If we consider time rather than distance, we find that it is as difficult to cross the city of Lansing as it would be to travel 12 or 14 miles. Until this point, this year, transportation has been up to the individual completely. This, in my opinion, is a type of discrimination -- educational discrimination, because the programs are not open to all. This means that the youngster is not free to travel unless he is old enough to have a drivers license. We also have tried to structure the program so that some of the programs provide entry level prior to the senior year. So we are building-in all of these little problems.

Our board of education has recommended that we support some type of transportation within the city or within a district for occupational education. I feel very certain that this will alleviate one of the problems that we had in identifying the youngster -- in most cases of the minority class -- for various types of programs in occupational education. As a youngster is identified, we try to work directly with counselors and exploratory shop instructors. And we think of exploration in all areas -- business, home economics, industrial, and all areas related to these, which will point an interest to occupations at the completion of high school. Let us say we identify this youngster now as a sophomore; we can immediately assume that he should go into one program or another. But we have found that it's much more advantageous to work directly with the youngster and his counselor and lead him to the process of selecting a number of varied programs. And we try to get exposure to those programs by providing transportation for the junior high youngster to move from one building to another. This takes a little time, and a little scheduling, but it is worth the effort. Junior high kids can go from the West side of the city to the East side of the city or from the South to the West or East -- but presently we are in three buildings. We feel the youngster should have a first hand opportunity to explore a program, and now we feel it very important that each of the instructors within the subject area should also have an opportunity to know something of the youngsters that they will eventually receive in the program.

Let me illustrate from a relatively new program in secondary vocational education -- cosmetology. Now this is new in the State of Michigan; it has been at the secondary level for the past two years. We have just completed our first year. By law we were allowed to select 40 youngsters for two sections -- or 20 youngsters per section for this subject. In this selection process, we had to set up some technique for training -- to make sure that we were fair to the students in the three buildings in which we operate. We also had to decide on a certain criterion other than grades. This was an internal complex system centered about a key counselor. He is the lead counselor in the occupations in each of the senior high schools and represents a staff of about ten men. To him all of the counselors would bring their applicants. It is the key counselor that gathers information on the applicants. He goes to the teachers involved with these people, and asks for direct recommendations. All these are brought to the central office where they are screened by a committee made up of the three key counselors, a coordinator and myself. The final selections may not be void of mistakes, but the procedure has proved very effective. We are doing exactly the same thing with all areas of courses we offer.

We are presently using the three hour block class. But this three hour block concept has raised another problem -- the problem of 28 credits for graduation. Any youngster who has for one reason or another, lost interest at a point somewhere at the 10th or 11th year and failed a course or failed two courses, will very definitely need some type of occupational program. With the three hour block concept, and traveling problems, there are not enough hours in the day so that the youngster may travel, possibly losing an hour each way, to a program and still fulfill high school requirements for graduation. Possibly the only way that we are going to resolve this problem is to either give additional credits in the course, or shorten the length of some of the courses and pick up related courses in the home schools. A drafting student, for example, would pick up a related mathematics course in the home school rather than the actual technical drafting aspect of the program. We also found that with the block time schedule we run into another complication -- preparing a schedule to fit every school. We have now left the principals and the teachers within their school district to more or less work out how they feel the program should operate.

There is another complication for the youngsters. Using the shared-time concept is causing some problem with the youngster's extra curricular activities. And this becomes very crucial, particularly in a city like this where you have three different athletic teams, three different bands, and so on -- all competing for the same talent. So you have a built-in fear here of stepping on someone's toes because you schedule a so-called number-one swimmer into an afternoon class that doesn't get out until 15 minutes after his home school had already been out; and he still has to travel back across town to get involved in that extra curricular activity. This is a real problem -- a difficult problem particularly when this youngster is in high demand.

There is a great deal of community involvement in Lansing. We maintain approximately 19 advisory committees -- 19 advisory committees in a community of approximately 150,000 people. It is therefore possible to reach many

employers of labor. The people in Lansing are doing one of two things: either they are supporting the program or the labor market is so tight that they will take anything. I would like to think they are supporting the program -- though I know that the labor market may also be tight.

The future holds some very interesting challenges as I see it; I think we have taken a leadership role in "shared-time". In the city of Lansing within two years, I'm sure we will see advanced instruction in such areas as science, mathematics, and foreign language occurring in separate facilities with single instructors to alleviate the problem that is occurring in the individual building. Thank you.

JACKSON COMMUNITY COLLEGE AREA PROGRAM

Harold Matthews

(Chairman) I am going to turn right now to Harold Matthews whom we've had an opportunity to hear earlier this morning. He has some slides of the Jackson County Community College. I am sure these are interesting, and relevant to the role the college plays in area vocational programs. Harold.

We have attempted this afternoon to put together a few transparencies, about eight or nine. I shall go through these rapidly and then I would be glad to visit with you, and to answer any questions you may raise.

The very first slide identifies Jackson County which is exactly the same area as the intermediate school district. The next slide will be of interest to you, as our approach is a little bit different from some of the approaches described today. We made use of, I suppose, the same kind of community resources but had to attack the problem a little differently. Essentially, our central committee grew out of the assistance of the intermediate office and the county-wide association of school superintendents who were very concerned to devise some kind of plan which would make vocational education available to more youngsters. The committee was made up of a few high school principals, a few superintendents of various participating areas, representatives of the Intermediate School District Office and myself. We made use of industry by going directly to the manufacturers' association; they had an executive secretary, who served us almost full time for a period of about six months. Also we had similar help from business -- through the Chamber of Commerce. The community college gave us passive interest and support when we asked for it.

There are two full time planning commissions -- a regional planning commission which takes in most of Jackson County, and a city planning commission, which works with immediate problems within the city (of Jackson) itself. These two commissions helped us on our planning and interpretation of data. The county schools, of course, gave us some support, particularly through the intermediate office. The Michigan Employment Security Commission was extremely active; they made available not only the local people, but from time to time they would bring in state economists to help us in the interpretation of data. This was our operational technique of involvement in

the community -- again a little bit different from somebody working with business and industry and labor attempting to define needs.

Incidentally, we have found a great need for vocational education for adults. Now this is a little different from adult education; this is education for adults as it relates to occupational requirements. The second need of course is a wide range of student needs -- now look at what we classify as students. We say high school, out of school, community college, adults. And of course we go on now to individuals with special needs. But we are a little bit different from what Dave Soule talked about when he said special education and people with special education needs. We will provide that type of educational training for those particular people as they are adaptable to what we offer. We are not another type of special education as you think of in terms of emotionally handicapped youngsters.

Incidentally let me outline the four essential ingredients to the operation of an area vocational program. First of all, you need a sufficient number of interested students with similar interests. The second item you need is a sufficient type of tax base. The third item that you need is a qualified staff. Fourth, you need appropriate instructional facilities. This doesn't always mean just a self contained instructional laboratory, or a self contained shop. It includes the ability to tailor-make programs.

I think that you would be interested in the next slide; it is rather colorful and an over simplified illustration of how our college works. We are the one and only college district in the state involved in this type of operation. Each of the purple areas represents one of our constituent school districts. The more we operate, the more experience we gain, and the more convinced I am that it is a little easier to come to a center than to operate three or four locations within the county area. I think the staff likes it better to be brought together; I think too that instructional facilities can be more appropriate, more accurate and if you get to the programing aspect you will find it quite easy to do it on a centralized basis. This is really how our operation works. But we insure that the student retains a high school membership, for we are an educational servicing agency, not a school. All we do in the area center we feel is on the basis of request from the chief administrative officer reached through school districts. We don't think this is good. Out-of-school youths under the age of 18 are enrolled as students at the high school district from which they reside. The grades that are earned at the center are sent back to the home high school where they are issued as their grades. One of the interesting by-products of this is that the offerings of the area center are now being improved. Our staff works with the various guidance counselors in each of the school districts to try to take a look at the general aptitude test scores and uses these as one of the factors in the choice of the occupational areas of instruction. Moreover we have a working arrangement with our own area vocational education center to work with the Michigan Employment Security Commission to reach a placement.

The next slide is a chart summarizing what I have said about community needs and expectations, about students' needs and about the essential conditions for a successful operation of an area program. I am now inclined to

recognize the importance of one of these conditions -- an administrative organization. It takes an administrative organization with people having a knowledge about vocational education to make the program successful. I guess we are developing a philosophy. First of all, we believe that vocational-technical education regardless of the level -- low, middle, high or post-high school level -- should contribute as an integral part of the total education process. We do not think that we should feel as they do sometimes in other areas of education -- set it aside, distinct and separate. Secondly, we believe that a comprehensive institution should provide for an educational continuum, one that you can start -- and as we say in our operation -- you can get on and get off at several different places within the community. Our third premise, and the very major one as far as I am concerned, is that the area being served should share in the support, and in the control of the organization; I think this is very basic.

The next chart shows our organization structure. The Dean of Vocational-Technical Education is the one administrator who has the responsibility for development, implementation and operation, of those programs that are occupationally significant. On his staff we have some supporting people; this is one of the reasons that vocational-technical education is expensive -- it takes a lot of support and personnel. There is also a full time coordinator who handles programs, another coordinator develops and works with special programs. The blue area shows our staff that is involved in those programs that we consider technical. The yellow area is the staff that is involved in programs that we consider vocational. I mentioned the fact that we had a special section of student personnel services that relates more to the vocational or more to the high school operations than it does to the technical.

One other item -- just briefly -- and this is our use of advisory committees. Some of our advisory committees are functional, others are not, in general our goal is that they all be functional. The advisory committee that works with my particular responsibility, is a general advisory committee which has over-all responsibilities. Then we have a number of occupational committees. It works out pretty well. Thanks very much.

Chairman:

I think it would be good to open the floor for questions; we have the three speakers right here, feel free to direct questions to any or all of them.

Question:

I'd like to ask Dave if he thinks it would have been more difficult to go for a mill than a half mill.

Answer:

Well, I'm sure that it would have. Fortunately in our particular case one mill is worth \$3,000,000 and a half mill is worth just half of that.

Question:

Do you think that this half mill will be adequate in the future?

Answer:

We do not anticipate any problems at this time. We are going to see how far a half mill is going to take us; a lot will depend on what type of aid we receive from the federal and state governments.

Question:

I'd like to ask Harold: What's the status of the previous existing vocational education programs in the Jackson High School?

Answer:

I think several things have happened. First of all, my own personal feeling is that they are probably stronger now than they have ever been. For the first time students can start at the home school, and finish off at the area centers; this simply makes the availability of the instructional space in each high school better. Now they may also operate an area of cooperative occupational programs. My feeling is that if any school district can operate it better than we can -- they should do that.

AN AREA VOCATIONAL EDUCATION PROGRAM SERVING A RURAL AREA:
THE SOUTHEASTERN INDIANA VOCATIONAL SCHOOL,
VERSAILLES, INDIANA

A First Report: William Martin*

INTRODUCTION

I'm very grateful to be with this enthusiastic group this afternoon. It is always a pleasure to renew acquaintances with my colleagues. I should like to add my commendation for this research effort pertaining to the shared-time concept for area vocational education programs. It is a worthy and necessary activity and the subsequent service that will derive is immeasurable.

Illustrative of problems -- and solutions thereto -- concerning the development and implementation of shared-time programs in vocational education, I'm reminded of the old saying that a camel is really a horse designed by a committee. Sometimes our approach to area vocational programs causes us to see camels instead of horses. Personally, I had long felt that this matter of area vocational education was a rather simple thing, but after sampling the various ways and means of program development, and having survived a development and implementation procedure myself, I am now of the position that it is a matter of "complex" simplicity.

BACKGROUND INFORMATION

The development of the Southeastern Indiana Vocational School has provided an excellent example of how the people in one seven-county area proceeded. The area, the people, the industry, the existing schools and their programs, the legal processes, and many other factors were considered.

The Service Area

The area that has been designated by the State Board for our school to serve includes a seven (7) county section in the southeastern corner of Indiana. As you know, our counties are smaller than counties in most other states. This area is some 50 to 60 miles in diameter. It is basically a rural portion of the state. In 1960, the population of the area was approximately 122,000 persons. It has been predicted by our State Board of Health that in 1965 the population would be 126,000 and in 1970, approximately

* From an address delivered by Mr. William Martin, Director, Southeastern Indiana Vocational School, at the Workshop on Shared-Time Area Vocational Education Programs, July 19, 1966.

133,000 people. There are a number of small cities and towns in this area; the largest, Madison, is about 12,000 population and is located near the Ohio River. There are four other towns located in the area, each of about 5,000 to 6,000 population. The remaining villages are quite small in comparison, ranging from 1,000 to 2,500 in population.

There has been much demographic activity in recent years -- we call it population expansion rather than explosion. Because of the Ohio River, many people in Indiana, Ohio and Kentucky are beginning to express the feeling that this area along the Ohio River will become the Ruhr Valley of the region within the next 25 years. River transportation is one of the reasons for this. The automotive industry makes great use of the transportation facility. We have a number of other resources -- availability of natural gas and access to interstate highways, to mention only two. The primary reason Versailles was selected as the site for area vocational education was because it is the geographical center of the area and is the most accessible, serviced by the major arterial highways in the area. Even though this area is considered somewhat rural, it is not isolated. Cincinnati is nearby, as is Louisville, Indianapolis and Columbus, Indiana. Many of the people residing in this area commute daily for employment to one of these metropolitan centers.

School District Reorganization in Indiana

In 1955, we had some 1,500 one- and two-room school houses. In 1957 our state legislature passed mandatory legislation to establish school reorganization committees in each county. These have since functioned very effectively, establishing new school districts and other similar consolidations. As a measure of the efficiency of this committee system, we have only two one-room school houses remaining. And in the reorganizational activity, we have constructed many new high schools and elementary school buildings.

Need for Vocational Education

In the 40-year period between 1960 and 2000, economists have predicted that our GNP will increase approximately 340 percent, industrial production will increase 320 percent and approximately 40 millions of new households will be established in the nation. In the decade of the 1960's, employment will probably increase by 20 percent and new production of goods and services by 50 percent, reflecting the impact of technology in our society. We also know that during this current decade, employment of technicians will probably increase by 42 percent, skilled tradesmen by 24 percent, workers in clerical, distribution and service occupations by 28 percent, and workers in health occupations by 35 percent.

Yet another factor to answer the "why" of vocational education concerns the world of people that will function in this world of work which is our primary concern. In this ten year period, population projections for the United States indicate an increase from 180 to 208 millions of people, or roughly a 15 percent increase. We are experiencing a particularly rapid population growth among young people reaching the working age. Our labor force is growing 20 percent faster than it has in the previous decade, and the total labor force figure for 1970 is projected to be about 87 millions.

Not only will the labor force be considerably larger, but the very nature of the labor force -- its profile -- will be different. It is predicted that the number and proportion of people in the labor force under 25 years of age will increase dramatically. In the age group 25-34, there will be a significant increase and in the age group 35-44, an actual decrease. And in the 45-year and over age group, about the same number. Too, we know that the number of women workers is increasing at twice the rate of increase for men, and will number in the 30 millions by the end of the current decade. We know also that our labor force is highly mobile. Millions of people change jobs annually. additional millions relocate geographically, and millions of people enter or leave the labor force.

School Leavers

Of great concern in the answer of "Why vocational education?" is the knowledge that 30 percent -- about 7½ million -- of the young people entering the labor force during this decade will not have completed high school. Conant called this latter statistic "social dynamite." And while we are referring to it, it will be of value to recall that out of every ten young people presently in grade school, kindergarten through sixth grade, three will not finish high school. Of those seven who will graduate, four will continue their education beyond high school, either in college or some post-high school institution. And of those four who continue their education, two will earn baccalaureate degrees. So, we know then, in summary, that of these ten youngsters presently enrolled in grades kindergarten through sixth, only two will complete college and earn baccalaureate degrees, even though we project college enrollments to double during this same period. These statistics point up the wide yoke of responsibility that we in public education must shoulder if we are to do the job for our youth with which we have been charged. It is for this responsibility that the school administrators in southeastern Indiana sense a very strong concern.

Limitations for Vocational Education in Small High Schools

Even after reorganization had taken place in the area, the school administrators, primarily superintendents, realized that they simply could not sponsor realistic diversified vocational education courses in each school. Many schools had too few students and too limited finances to fulfill the responsibility. Early in 1963, they began exploring the possibility of joining hands, pooling resources and establishing some sort of a joint program for providing an adequate vocational education program. Much of this informal discussion took place at meetings of the Superintendents Association.

Organizing for Action

An informal steering committee was formed, and a series of meetings were held. The committee petitioned the State Vocational Office for assistance, which was readily made available by the State Division of Vocational Education. The feasibility of conducting an intensive study of vocational education was discussed. In December, 1963, Public Law 88-210 was passed, providing the impetus needed to develop and implement a functional vocational education

program. In March, 1964, nine school corporations entered into a written agreement -- a contract, if you will -- for the establishment of what is known as the Southeastern Indiana Area Vocational School.

Some of the more pertinent provisions of this agreement were: (1) each participating school district shall have in its budget a uniform tax levy for vocational education and the money drawn on this local tax levy shall be contributed to the Area Vocational School Corporation; (2) the school is governed by the Board of Managers consisting of an appointed member from the school board of each participating district; (3) each of the participating districts shall hold joint properties of the Area Vocational School in proportion to the amounts of money that each has contributed; and (4) the programs offered by the joint corporation shall be available to all people (including out-of-school persons as well as currently enrolled high school students) in all parts of the area. This participation agreement, was approved by the State Attorney General. The school then became a legally constituted joint school corporation.

IMPLEMENTATION OF A CONCEPT

Building Corporation

Next we entered into what we call a program of functional progress to implement the concept of the area school. First was the organization of a private, non-profit building corporation empowered to issue bonds. (In Indiana, a school district cannot issue bonds.) The school corporation entered into a lease agreement with the private corporation for lease of the particular building for a pre-determined number of years. The Board of Directors of the building corporation has cooperated very closely with the Board of Managers of the school many times meeting in joint session. In the fall of 1964, a timetable was outlined. With only minor exceptions, the timetable was realistic and we are now (summer of 1966) in the final stages of construction.

Adult Programs First

During the interim period since the fall of 1964, under the provisions of the Federal Manpower Act, we have operated programs in temporary facilities. In addition a number of adult evening programs sponsored by the Cooperative Extension Service have been conducted in the same temporary facilities.

Purchase of Equipment

During this interim period, the major portion of the budget dollars were utilized for the purchase of equipment. Some of this equipment has been in storage. Too, some of the equipment was purchased on delayed delivery, so that when the building construction is completed, the equipment can be moved directly from the vendor to the building for installation.

CURRICULUM DEVELOPMENT PRACTICES

Our approach to curriculum development is somewhat unique, and includes a great deal of personal philosophy. Early in 1964, shortly after the participation agreement was adopted, a curriculum committee was organized consisting of labor people, industrial personnel directors, state employment service people and educators who conducted a very thorough survey under the leadership and guidance of Indiana State University.

Survey of Job Opportunities

Questionnaires were mailed to employers and extensive follow-up -- personal contacts -- were made to employers and to other sources of information. For example, the committee contacted the State Employment Service offices in the adjacent metropolitan centers -- Cincinnati, Indianapolis, and Louisville.

From information gathered, the committee clustered jobs into what were called major occupational areas and then from the identification of the major occupational areas, the architects were provided with a building function premise as a reference for designing the most appropriate form of building.

Manpower Demand

One of the factors used in justifying a curriculum design or a program is the demand for employment of persons with the particular skill in the area. Another factor used, and one we in vocational education must always keep in mind in developing curricula in vocational education, is the universal need for such a skill. Those sociological factors previously noted -- mobility, education requirements, and geographical location -- readily provide the answer to the query "Why electronic data processing courses in a rural area in southeastern Indiana?" The metropolitan centers nearby have an urgent need for persons with such skills. There is a need for all of the occupation skills that our programs provide in these adjacent metropolitan areas... and in other metropolitan areas more distantly removed.

Vocational and Technical Tracks

We have approached the matter of program development on two tracks. One we have identified as a "vocational" track; the other we call a "technical" track. Within this concept, the broader aspect of our program involves two types. One denoted as "regular," the other as "special." In the special programs, we include the evening courses, the Saturday courses, the Summer Institute Workshops, apprenticeship-related instruction, trade extension, professional up-grading courses, special manpower programs, and many others. It is in the regular programs that we have established the vocational and technical tracks. We have not developed programs in either track in the concept of "levels." These are not high school "level" nor post-high school "level" programs. We are concerned with people and programs, without regard to their in-school or out-of-school status.

The vocational track program features 1080 contact-hours. This is a one-school-year program on a full time basis or a two-school-year program on a half time basis.

The basic plan of participation for the sending or participating high school is to send students to the area center for $\frac{1}{2}$ -day during their junior and senior years. This would be 3 hours daily for 4 semesters, in a 180-day school year or a 90-day semester, for a total of 1080 hours.

It is conceivable then, that a high school student could complete vocational programs concurrent with his high school graduation requirements. Every course in the program is one semester -- 18 weeks -- in length. There are 8 courses in a vocational program (and exactly double that in a technical program). These courses have been designed to meet the requirements of the Type B vocational programs as outlined in the Indiana State Plan for Vocational Education and also around the format pertaining to granting of high school credit. Each course has a one-credit value. The student, during his high school training experience in vocational education, would earn 8 credits towards graduation. The student retains his identity at the home high school. In essence, the vocational center is a part -- a department -- of his home high school.

Included in the technical track program of 16 courses are 8 one-hour daily related instruction courses and 8 two-hour daily laboratory or shop skill development type courses. We have used a vertical approach in our instructional pattern. We begin with a related instruction course and a shop course. We do not demand of the student, "you must complete X number of prerequisite related courses before you can begin your skill development." The student is immediately involved in such skill development from the very first day of enrollment. He graduates from the simple experiences to the more complex experiences as he proceeds through his program. The flexibility of this longer program enables the high school student to enroll and complete the first half of the program while yet in school, and then complete the technical program in a year of post-high school activity on a full time basis.

Content Courses

Content included in a program, vocational as well as technical, consists of the "know-how" and the "know-why." The "know-why" content is the related instruction. In a vocational type program, however, the ratio is approximately even. More emphasis is placed on the "know-why" in the technical programs.

Programs of Courses

We have developed an offering of 42 programs for the first year of operation. The reason for this number of programs is what we call the "super-market approach." We are dealing with 13 high schools, including the four added since their districts joined. We simply must "stock the shelves" in order that the students in need of programs can come in and do their "shop-

ping" according to their determined needs. We have to have a wide variety in order to make the total operation realistic and in order to meet the "open door" policy we have adopted.

There are many ways we in vocational-technical education can add diversification to our program offerings. The use of CORE courses is one example. There are many courses in these programs that will apply to more than one type of program. Another means is the use of individualized instruction. It is conceivable that we will have students in as many as three or four different courses under the supervision and assistance of one instructor if that instructor is skillful in utilizing individualized instructional techniques.

Open Enrollment

The vital criterion is that enrollment in either program is open to anyone. An out-of-school person can enroll in a vocational program, and a high school student can enroll in a technical program. All classes are on a non-graded basis. It is conceivable, then, that we will have a 17-year-old student working and learning side-by-side with a 35-year-old man. The controlling factor here is only that it be the kind of course that he needs for the program he is working on.

STUDENT PERSONNEL SERVICES

Of great importance to our total program is the concept of "student personnel services." We have a department in the school so identified, rather than as Vocational Guidance, because the services range far beyond the guidance concept. It is the responsibility of the people in this department to take care of intake, direction and output of students, enrollment, counseling, testing, program planning and an honest, workable placement service very similar to those we find in most of our colleges and universities. Another aspect of this matter in student personnel services is selection. The traditional limitations in vocational education programs in the past are eliminated through our multiple offerings and flexibility within those offerings. The diversification feature in our developed programs enables us to offer high level programs that will challenge and stimulate the high-ability person to develop his optimum potential. At the same time, we offer programs tailored to the needs and pace of the slow-learner so that he may experience success in training. And between these two extremes, we offer a wide range of diversified programs to meet the needs of those who take advantage of our open door policy. Although anyone can enroll, program selection is the domain of the student personnel services department, and it is that department's responsibility to aid in the selection of a program for the optimum development of the individual.

I will emphasize that in our philosophy, the person is the important and controlling ingredient, not the program. We have developed a method whereby we conduct an individual assessment of a person who comes to enroll -- a personal inventory if you will. All of the information we accumulate in this individual assessment is coded into what we call a "qualification profile,"

and is similar to the occupational grouping profiles in the New Dictionary of Occupational Titles. For each curriculum we have developed a set of code information that we call and "entrance profile." It is the work of the Student Personnel Services to arrive at a Qualification Profile and then identify the Entrance Profiles of several different curriculums in which we could logically predict successful training for that particular individual. The individual is given the maximum number of choices of types of training in which we would predict successful completion of training and subsequently successful employment.

A course called Introduction to the World of Work, is a requirement in every curriculum. It is placed in the final semester of work, and is basically a course in practical humanities -- how to get along with people on the job.

OTHER ASPECTS

Programs

Initially, our major occupational areas will be business occupations; maintenance occupations; health occupations; graphic, industrial and automotive occupations. We have tentative plans for growth and expansion in the second year, at which time we will offer instruction in construction crafts, food service occupations, product service, personal service, expansion of automotive occupations, plus additional offerings in most technical occupations.

In terms of program operation, the matter of coordination with participating schools is of the utmost importance. We found that one of the very real needs was to disseminate occupational information. These students in this rural area simply are not aware of employment opportunities. We arranged with the Indiana State University to offer an in-service course on Vocational Guidance for our personnel services people. The activity in this course was a practicum workshop. This helped prepare these personnel service people with occupational information to their students. We are now working on the counselor handbook. We anticipate that this approach will remedy the unbalanced enrollment problem we are currently experiencing.

We've established a system for grades, graduation, and grade reporting. I might say that one of the activities we're planning is conducting a 2-week session during the summers where we can bring in all students from participating schools in the 9th and 10th grades -- an exploratory session to get them acquainted with the programs so they will have some basis for intelligent choice when they enroll.

Basic Requirements for an Area Vocational Program

I might spend just a moment here on the subject of people and dollars. From my personal experiences in the past two years, there are some minimum standards I feel should be apparent to justify an area vocational program. There should be a minimum of 2,000 students in the 11th and 12th grades, one-fourth of them availing themselves of the vocational program. As far as construction or rented space is concerned, you should think in terms of 200 square feet per student. This shouldn't be for only the present -- you should

allow room for growth and expansion. You could calculate construction costs at roughly \$20. per square foot. You can generally calculate about 75% of the total construction costs for the cost of equipment. You save some of this expenditure if you have a good relationship with your state surplus agency and if the equipment that you need becomes available. But if you are going to buy all new equipment, figure about 75% of the cost of construction.

We have calculated operating cost at \$400. per student per year at a half time basis, or \$800. per year at a full time basis. That is over and above the capital expenditures. You have to secure some direction from your state agency office as to what extent of reimbursement you can expect of state and federal funds for vocational education to determine the degree of feasibility.

CONCLUSION

In conclusion, I should like to relate some personal observations of some challenges that we are facing in vocational education. (1) We should be thinking about total vocational programs. We need to overcome this dichotomy of high school programs and post-high school programs. Education is a continuing, life-long process. (2) We need to cooperate. In Indiana we don't have community colleges, so our school has to assume the responsibility of a total program. It appears that in the State of Michigan you have a number of factors to your advantage in the way of resources. You have the intermediate school districts, which are already a good geographical outlay for many potential area vocational set-ups. You have community colleges. You have been spending time on leadership training. Here are resources that you have to work with. I see your main problem as fighting through the legal barbed wire to put these resources together, but you have the tools to do it with if you can determine how best to use the tools.

(3) Another challenge that we are facing in education in general is one we would call internal division. On the ordinary college or university campus, for example, where does Economics belong? Sociology? or Business Administration? internal division! And we in vocational education have just as great a problem in that respect as any division of education. We have the traditional branches. We have had Vocational Agriculture, Vocational T and I, Vocational Business, and Distributive Education. I can't help but feel in reading the new Act, that it was the intent of Congress as it definitely was the intent of the President's panel, to overcome this internal division and begin to weld all the branches as they have existed through the years. They do not fit today's world of work. When we start thinking about all the different hybrid programs, for example -- agri-business -- who does it belong to? -- vo-ag or vocational business? We are going to have to think about working together as one team of vocational educators in overcoming this traditional branch approach.

(4) In an area program we need to think about professional status of personnel. If you develop an area school which is sponsored and participated in by several school districts, your director should have the same professional status as your superintendent of schools. He should be a member of your superintendent's association. If you have a school sponsored by a large metropolitan center -- then the director of that school should be the

assistant superintendent for vocational education. You should be able to provide professional stature for the leadership you expect in your vocational school. (5) We need diversification and flexibility. I talked about diversification -- wide variety in course offerings. And as we project into the future we realize that we will have to add flexibility to diversification. By flexibility I mean aspects such as modular scheduling. We must start thinking about all kinds of innovations. As it is at the present, if we have a person come in our door in October to enroll in the program, we'll have to say the second semester begins January 23. Sometime between October and January 23, the motivation has dissipated. We must think of programs in "mods," so that we can start the person in training as soon as he comes through the door. We must, because we have to design education to meet the needs of people, and people don't live by semesters.

(6) We have been talking about programmed instruction lately. Vocational education has employed this technique for the past 50 years. We have been talking about individualized instruction and this is nothing but programmed learning and we have to use more of it. (7) And certainly the colleges and universities have to show their responsibilities in the field of teacher development and teacher training. We need teacher-training in the field. We need itinerant teacher training, people who will go out and service the local schools so that they may utilize the home talent that they have.

(8) We also need leadership and direction -- leadership from the state offices and the regional offices and the U. S. offices. Much activity is taking place at the local levels. But we will have to have help from regional and federal offices to do the job we want to do -- and that need doing.

Thank you very much, gentlemen, you have been a kind audience.

A Second Report: William Martin*

INTRODUCTION

Words can't possibly express how happy and grateful I am to be here again and to share with you a report on the continuing activities of the Southeastern Indiana Vocational School.

This past year, which was our first year of operation in our new building, has been one of the most stimulating, perplexing and satisfying years in my professional career. If I were to endeavor to relate to you everything that happened, time would not possibly permit. So I have decided to talk for the first few minutes about some of the basic precepts of philosophy that have evolved in my thinking during the past several years relative to vocational education in particular, and education in general, and then to show you a series of slides about some of the programs and activities in our school this past year, and finally to take a look to the future. This will leave time for questions and answers.

SOME GENERAL AND SPECIFIC PRECEPTS

The first of the philosophical precepts is that skills and knowledge, necessary for people to function effectively in the world of work of today and tomorrow, are becoming more and more complex. Dr. Campbell stated that it is absolutely necessary that people must learn more today. If we were to assign the value of X to all the knowledge that was accumulated up to the year 1900 A.D., we could see that by 1950 we have 2X, by 1960 3X, and we are rapidly approaching the point of 4X today. We have to realize then, that most of us are functioning in a 4X world with a 2X or maybe a 1 1/2X education. Your children and mine are learning much more in school than we learned.

Another question comes up, as Dr. Campbell so aptly indicated last evening: are we learning to use what we know? And we might also question how realistic is some of this matter we are learning. This reminds one of the classic conversation between two little boys out on a playground during recess, watching a jet plane flying over. One boy said, "I bet when they pass the sound barrier a lot of thermodynamic stress will set in." The other replied, "Yes, but I understand now they are using ceramic coatings to help dissipate the heat." Then the bell rang to end recess, and the first boy said to the other, "Well let's go back in now and string some more of those damn beads." And I think we in public education need to think of overcoming the "stringing of the beads."

* From an address delivered by Mr. William Martin, Director, Southeastern Indiana Vocational School, at the Workshop on Shared-Time Area Vocational Education Programs, July 17, 1967.

Another precept I think that we all would have to agree with is that people are infinitely variable. No two of us are exactly alike. This poses a responsibility for public education to provide the kind of diverse education that will be effective for people with their infinite variabilities. I think that this is something to keep in mind when we think about the traditional unit set-up that we have in most of our public schools today, with its limited choices, the limited curricular paths that are available to people -- the bill of fare that we are serving in our public schools, so to speak.

A third precept is that learning is a lifelong process, beginning early and staying late, literally from the cradle to the grave. And I think that the difference in levels that we speak of at times -- the high school level here and the post-high school level over there -- in many cases is unrealistic stratification, as is the "necessity" of adhering to grade levels. We found ungraded classes to be one of the most successful factors in our whole operation, with seventeen-year-olds working and learning side by side with thirty-five-year-olds. One might call it a very healthy situation. To cite Prosser, we should open the doors to anyone who wants, needs, and can profit from what we have to offer. The key word in that statement is "anyone", because learning is a continuing process, and we all need it. This puts the yoke of responsibility on the shoulders of public education. One of the things that Congress told us when they passed the 1963 Act was that we must make vocational education person-centered, and we do need to design and gear programs around the needs of people rather than around the glory of the program.

I think that in this task we must meet the challenge of overcoming internal division, both in vocational education and in the total field of public education. In using the traditional divisions of Vocational Agriculture, Vocational Home Economics, T & I and Business and Office, we have in too many cases built little ivory towers within which each one dwells, never again to meet. We are rapidly approaching a point where we will have to overcome these limitations of divisions, as illustrated by this little quotation which I copied from an AVA Journal of last year: (American Vocational Journal 41:8, April 1966)

"Once upon a time, the Urbanville School wrote to the State Board of Vocational Education and Rehabilitation saying 'We are interested in training students in the operation of new machines.' The state director turned the letter over to his assistant director who asked the chief of T & I to have a supervisor check the next time he was in the Urbanville area. When the supervisor called on the Urbanville school authorities a few weeks later, he found that they were really only interested in data processing machines. 'Well,' said the supervisor, 'I will refer your request to technical education.' And when a representative from the technical education department called at the Urbanville School, he was told that the administration didn't propose to train computer programmers or operating technicians, but only wished to familiarize students with the field and give basic training in the operation of peripheral equipment at the high school level. So technical education helpfully referred the Urbanville officials to business education, which upon investigating,

learned that the school hoped to train people so that they could go on to further post-secondary training if they were unable to utilize the short term training for entry into low level EEDT jobs. This proposition was not of a sufficiently sophisticated level of vocational preparation to satisfy the requirements of the business education department, but word soon leaked out that the great need in the Urbanville community was to immediately staff a facility, soon to move in, which would assemble, analyze, and retrieve data concerning farm implements sales, distribution, and maintenance. Since this is an area where a knowledge of agriculture is considered valuable, the Vocational Education Act of 1963 would allow it to be called Vocational Agriculture.

"The Vocational Agriculture people were informed and a supervisor visited Urbanville to talk about establishing a proposed offering as a related agricultural occupations course, only to find that the actual need was for part-time workers, most of whom had already been recruited from the ranks of housewives of high school girls. The Vocational Agriculture man reported this back to the Home Economics Service, from which a supervisor was thereupon dispatched to Urbanville with instructions to get the thing organized as a gainful employment program, for the purpose of getting rid of State money that has to be spent for wage-earning classes. However, the Urbanville superintendent and his supervisors found that, under a Home Economics wage-earning program, they couldn't get a data processing equipment teacher approved to teach the class. As a final stroke of state level leadership and promotion, the state director apologetically told the Urbanville superintendent that he probably should have sent him assistance in vocational guidance and counseling in the first place. At this point, the Urbanville people thanked the state staff for the various good offices, but indicated that they had already received more attention than they had bargained for."

I think that this fable adequately illustrates something of a challenge we are facing, not only of internal division within vocational education, but also across the board in public education today. In local schools, community and four year colleges, and universities, there seems to be a lot of unfortunate self-interest coming between various kinds of operating entities, though we should think of cooperation, as between members of the same team, if we are to meet our heavy responsibilities. As I look at the situation here in Michigan, I am impressed with the resources you have at your disposal. Harold Matthews and his Jackson project could serve as a prototype and inspiration as far as cooperation is concerned.

Another precept, and reason for cooperation, is this fact: vocational education is expensive. It costs a lot of dollars to provide the kind of facilities, hardware and instructor competencies necessary to conduct an adequate vocational program, which most school districts, especially in

outer or semi-outer areas, cannot afford. So their only alternative is in some way to join hands and establish a vocational program on a joint basis. Basically, this is what happened down in southeastern Indiana, as I related to you last year. To assist me in sharing some of our activities during our first year of operation, I have a set of slides which we often use to give various clubs and people in general an idea of what takes place at the area vocational school, and to stimulate interest in the mind of "the man on the street."

RECORDED COMMENTARY ON SLIDES

Here we talk about your new Southeastern Indiana Vocational School. This is Versailles, Indiana, a typical small county seat town located in the center of Ripley County. Versailles is the central location of the seven-county area designated to be served by the vocational school. The other counties include Decatur, Dearborn, Ohio, Switzerland, Jefferson and Jennings. Versailles, along with being the geographic center of the region, also is serviced by the major highways to facilitate transportation of students.

This is an aerial view of the new vocational school building taken from the southeast. The forty-two acre site is located at the west edge of Versailles where U.S. highways 50 and 421 run together. The building contains 120,000 square feet of floor space with forty-nine shops, laboratories and conference rooms to accommodate vocational and technical training, set in ten major occupational areas. The cost of construction was \$1,560,000, of which fifty percent was received in federal funds under provisions of the Vocational Education Act of 1963, Public Law 88-210. The other fifty percent came from the sale of bonds by the Southeastern Indiana Vocational School Building Corporation. The bonds will be retired over a thirty-year term at an annual lease-rental payment of \$48,000. The building was designed by the Everett-Brown Company, architects and engineers of Indianapolis, Indiana. The general contractor was Glen Roy Construction Company, also of Indianapolis. Mechanical work was performed by the Burton Plumbing and Heating Company of Rochester, Indiana. The building contains a modular complex of rooms in the center, which, having no exterior walls, eliminates 800 lineal feet of exterior wall, saving enough to air-condition and humidity-control the central complex and facilitate more comfortable summer usage.

Construction began in July of 1965 and was slated for completion in August of 1966. Even though the building was not completely finished in August, school officials were permitted to occupy the structure to prepare for fall-semester students. In the face of many adversities, due to construction still in progress, contractors, architects, and teachers worked hand in hand in order to open the doors to students on September 6, 1966.

A fundamental decision made by the board after the beginning of the construction program was to omit some of the proposed finishing touches on the new building. Things such as ceiling and floor tile, paint, and landscaping will be completed over a period of time as student-training experiences, using tradesmen as instructors. In making this decision, some \$300,000 became available for investment in additional floor space to accommodate future growth and expansion. We are most grateful for the building we have and the programs that are being conducted. At the same

time, we realize that we face the continued challenge of working toward development of the facility to full capability.

On Tuesday, September 6, 1966, 393 Southeastern Indiana students entered into a new adventure of vocational education, one of the fundamental precepts of which is that the doors shall be opened to all people who can profit from vocational training. The programs will be selected for the person rather than persons for programs. To implement this philosophy, the school maintains a department called Student Personnel Services. Here, vocational guidance counselors provide a professional assistance to people in making intelligent choices as to the type of program best suited for their needs, aptitudes, and abilities. Here is a view of the Student Personnel Services office, located directly in from the main entrance to the building. In this first year of operation, the school offers forty-two different programs in six major occupational areas.

The regular day programs are of two types: Vocational and technical. A vocational program consists of 1,080 hours of training. The high school student who begins a vocational program in the eleventh grade will normally spend three hours a day at the vocational school during his junior and senior years at high school, and thus complete the vocational program at the same time he graduates from high school. A technical program encompasses 2,160 hours of training. Enrollment in either type of program is open to high school students and out-of-school people.

The automotive occupations form one of the major occupational areas. The following series of slides will give an indication of the kinds of training activities typical of the automotive programs. Here we see Bob Bradley, of Holton, steam-cleaning an engine block, and students from Madison and Milan honing cylinder walls. Next are students from Carrollton, Kentucky, and Dillsboro, performing a major overhaul of a small gasoline engine, followed by two students performing a tune-up job under the supervision of their instructor. You will notice that the school has the most modern type of equipment typical of that found on the job, so that a high degree of transfer of training from the school to the job will occur. Now we see Mr. Gerald Kirby, the instructor, and a group of students in a diesel mechanics program conducting a series of performance tests on a modern diesel engine.

Another of the major occupational areas is Business Occupations, and the following slides will indicate typical training experiences in that area. First are three students developing skills on key punch machines under the leadership of instructor T. Barriman. Another student in data processing is Sheila Petty of Southwestern, shown wiring a panel from a pre-planned program for insertion into an electronic data-processing machine. Finally we see three students reviewing a print-out on the IBM 407 electronic accounting machine.

Distributive education is playing a more and more prominent role in our society, dealing with the distribution and sales of the many items which we are able to produce. Here we see, under the leadership of their instructor, a group of distributive education students in a typical learning experience, that of window display. General clerical and secretarial training programs are among the most popular at the school, shown here by

two Batesville students developing skills in duplication work. Mrs. Lane VanSlyke, instructor of business occupations, exemplifies the dedicated spirit of the faculty by working with students on an individualized and small group basis to make instruction person-centered. This scene shows a typing class in concentrated effort toward developing salable skills, and next we see girls discussing with Mrs. VanSlyke the finer points of operating an offset press.

Graphic occupations form another major occupational area. First, in commercial art, we see Earl Berfield of Aurora working at a light table on an advertising poster for the April Spring Arts Festival to be held at the vocational school building. Another very valuable graphic program is offset printing, here illustrated by instructor Ronald Cubit working with Dae Williams of Sunman on one of the several steps involved in preparing an offset plate. Next, in the print shop, we find Gwen Northburn preparing a model 1250 press for operation.

Another graphic occupations program with a high degree of potential for preparing young men and women for attractive employment is that of mechanical and tool design drafting. A close-up view of the kind of work involved in this program is given as we watch Tim Whistle of South Ripley conferring with Mr. Wisely, the instructor, followed by students involved in operating a square root calculator and working on a design problem.

Another program in which a high demand exists for employment is that of architectural drafting. Here we see Mr. Paul Ridenhower in conference with three students, followed by a view of a blueprint being made by Richard Snyder of Madison from an original drawn tracing.

Our next major occupational area is Industrial Occupations, first illustrated by students operating an engine lathe in the machine shop. Next are three students concentrating on the set-up and operation of the dividing head on a horizontal milling machine, followed by a succession of shots showing students fusing and welding steel plates with an acetylene torch, arc welding, playing electrical magic on the screen of a television receiver, hooking up equipment, running tests, and studying hydraulics in the fluid power laboratory.

Next year we plan to offer beauty culture as a new program of the school, and two Southwestern students pose to give us a preview.

Health occupations is another of the major occupational areas. Here we see two students working with a patient in the nursing arts laboratory, and a registered laboratory technician serving as a visiting instructor in medical lab techniques.

This is a typical scene in the administrative office of the school.

We find that students staying with us all day get hungry at about 11:35 and this scene portrays our solution to the problem. The school kitchen uses modern institutional food-preparation equipment. Next year, we plan to offer a training program in culinary arts, with the kitchen serving as a training laboratory.

One of the auxiliary services of the school is a well-stocked bookstore to provide adequate supplies.

Students in laboratory classes lasting two or three hours are given breaks in the morning and afternoon, giving our people an opportunity to become well acquainted.

A LOOK TO THE FUTURE

As far as future development is concerned, I would like to block my comments off into a three-step approach. Step one, already begun, we would call "diversification." If we are really going to "put our money where our mouth is" in talking about accomodating people -- making training person-centered and remembering that no two people are exactly alike -- an adequate vocational offering must have diversification. We have forty-two programs this first year -- a very ambitious task, a very uncomfortable thing, but one we are happy about. Among these forty-two programs are some high-level programs such as our two-year technical courses, among them the course in data processing technology that will challenge and stimulate the high-ability person to develop his optimum potential. At the same time we have some courses such as custodial and building maintenance training which will permit the person of lesser capability to be successful in training and subsequently successful in employment, not to mention a wide range of programs in between. As we look to the future, we intend to continue to add needed programs and do away with those which have become obsolete, but to continue expanding in the area of diversification.

Step two in this whole long-range plan is what we call "flexibility". Here we want to get into the idea of completely tailor-making the program for the individual. We will implement modular scheduling. Instead of programs made up of a spectrum of courses, we intend to break the courses down into units of instruction or units of knowledge, and come up with a spectrum of units indicating the total capability of the school. Then, when a person comes to us and expresses an interest in training, we will try to find out as much about what he wants to do, what his objectives are and what his total capabilities are as we possibly can, and pick from our total capability of units to design or tailor-make a program for him within the capabilities that he has. It is going to take a lot of doing over a period of years to get to this point, and we are going to have to start internally, with staff development. We think it's a worthy objective, and are taking some steps to move in this direction this next year.

As a third step, we think "accessability" is also important. Geographically, that is in adhering to the area concept, it is already accessable. But speaking in terms of time, we want to get to the point where, if we can absolutely tailor-make programs for people, then we want to be able to begin when the person wants to begin, completely doing away with the structure of semesters. For example, if a person were to come in on July 18 and our student personnel services people were able to work with him to design a program, he would begin on July 18. Maybe his program would last six months to bring him to the point of his objective, or maybe it would take a year and a half. But we want it to be completely person-centered. We don't know exactly how long it is going to take to develop all this, but we think they are realistic goals toward which to work.

With this, I think that perhaps I should conclude my prepared remarks and entertain, in the few remaining minutes, any questions you might like to ask.

Questions and Answers

Question:

Did the construction cost include any equipment?

Answer:

No, that is just building, but including the cost of the ground. We bought our forty-two acre site from a friend of the effort for \$11,000.00. It was a real break, considering that Batesville, one of our participating school districts, recently bought a piece of ground for their new school and had to pay \$2,000. an acre for it. So we feel real good about that. It includes the cost of the ground, the architect fees, the attorney fees, the contingency fund, and the construction contract. The construction contracts themselves were \$1,340,000.00. We now have about \$600,000. in equipment and we have had to "scrounge," as most vocational people have learned to do; we have conducted a number of man-power programs in temporary facilities while under construction, and there was some equipment money in those budgets. We have obtained a real good contingent of machine tools on a loan from GSA in the NIAR. We work very closely with our state surplus agency and are continually hobnobbing with industry. If it weren't for the Cummins Engine Company, I don't think we could have conducted that diesel mechanics program. They are going along with even such things as the dynamometer, which they don't manufacture. It is fortunate that we have been able to establish very good relationships with industry and that industry is willing to contribute a lot. By now we have spent about \$600,000. and have a long way to go yet.

Question:

What is the furthest distance to any of your participating schools?

Answer:

The longest distance is thirty-four miles, but we speak in terms of travel time, not in terms of distance. For these students who come the thirty-four miles, the trip doesn't take very long owing to a good straight highway. We have another district, by comparison, which is about twenty-five miles away in Switzerland County, which looks like its namesake and is all hills along the Ohio River, with no straight roads, and is a real transportation trouble spot, from which it takes students about an hour to reach school.

Question:

I noticed you have students from Kentucky. How can you do that?

Answer:

Under the provisions of the 1963 Act, adjoining states can enter into agreement to allow students from one state to transfer to another. Indiana has entered into an agreement with Kentucky and Ohio.

Question:

Do you have a problem attracting instructors?

Answer:

Well, yes. In fact, I'm on a little recruiting mission right now. We feel fortunate in the respect that the staffing problem is not as much of a monster as some people tend to think it is. We realize we have to get ourselves involved, to go out and search. We advertise in the Cincinnati, Louisville and Indianapolis newspapers, and the response is amazing. There is also a lot of local talent that has been really stimulated with the area vocational school, especially the part-time evening adult programs. In Indiana, the T & I area can use non-degree people, though we can't use them in any of the other areas. We have what we call, in our teacher licensing division of our Department of Public Instruction, the non-conventional teaching certificate for non-degree people. Then we have an arrangement set up with Indiana State University to sponsor at least six hours of approved vocational teacher education course work at our center every semester. This gives our people a chance to grow professionally and helps the people who, under non-conventional certification, are required to complete twelve semester hours in a two year period in order to have the certificates renewable.

Next year we will have an instructional staff of thirty-four people, but right now we are short three people in the automotive areas. We need two diesel instructors and one good automotive machine shop man. I have some candidates who look good, and I feel more comfortable now than a couple of weeks ago. I'm definitely not as apprehensive about staffing now as I was two or three years ago.

Question:

What is your salary schedule?

Answer:

Our salary schedule begins at six thousand dollars for a Bachelors degree person and sixty-four hundred for a person with a Masters degree. That is very comparable to the public schools in our area. Then we have rapid adjustments for the first four years to get to eight thousand in a hurry, rather than making a person teach six to eight years to get top pay. We go up quickly and then taper off, which has advantages. The range this next year will be from six thousand for a beginning person, and we have three or four instructors making around ten thousand. In our administrative staff, each department is headed by a coordinator who has full-time supervision responsi-

bilities for the activities within that department. Salaries for these positions are open and range from ten to twelve thousand. As a member of the superintendents' association, I can say that my salary is comparable to the salary of superintendents in our area.

Question:

What is the normal contract length?

Answer:

Forty weeks, or nine and a half months. We actually have 180 days in the school year, or thirty-six weeks, because there are about ten days off during the school year for things such as Christmas vacation. The forty weeks is made up by having a week of pre-school orientation and a week of inventory after school is over, et cetera.

Question:

Are non-degree people on the same salary schedule?

Answer:

The non-degree people earn about twenty dollars less per pay period, though in some cases we award just as much consideration for their trade experience as we do the education. Most are of the level of the baccalaureate person. One instructor employed on the same basis as a baccalaureate person served eight hours a day for two years teaching electronics at the San Diego Naval Base, and is very good.

Question:

I presume that the D.E. program is primarily preparatory. Do you maintain it as a training program and if so, how?

Answer:

Many people ask if our Distributive Education program is cooperative, and it is not. It's institutional, and we are using what we call a project plan. This is because the training stations in our small town would be too limited for a shared-time vocational arrangement and travel time would be difficult to set up a cooperative arrangement elsewhere. However, a number of the health occupations programs demand clinical experience, and these we do run as cooperative. We have two large mental hospitals in our area with over 2,000 patients each where students spend a certain number of weeks on a clinical arrangement to work on programs such as psychiatric attendant training program in which people make use of dentists' offices.

Question:

How about high school credit?

Answer:

We have very few problems as far as credit is concerned. The participating high school can award up to three credits per semester, as the students spend only three continuous hours at the vocational school. Most of them don't do this, because it isn't necessary, but award one credit for a two-hour laboratory course and one more credit for a related training course, for a total of two per semester. But in those cases where the participating school is a member of the North Central Association and wants to have higher standards or has to give a certain number of credits for graduation, it can award three. We have an arrangement with the Indiana High School Athletic Association to uniformly recognize credits for qualifying the student participating in high school athletics. So there is very, very little problem as far as obtaining credits is concerned.

As for scheduling, we had one problem this past winter with one school being unable to get its students in early enough in the morning, and, not wanting to send them in the afternoon, proposing to come at 10:00 a.m., stay through lunch and return in the afternoon. We had our schedule pretty well blocked off for three hours in the morning and three hours in the afternoon, but we told the superintendent, "You send them when you can and we will do our best." So he did and we did our best, but still we felt that the students were being short-changed a little, and, in working with this school district, we have worked out an arrangement in their local transportation so they can come in the morning next year. Aside from this problem, scheduling is working out well.

Question:

Just how is the area school legally organized?

Answer:

This school, in essence, is a joint public school corporation, sponsored by thirteen participating school districts in a six-county region in Southeastern Indiana. Each of these school districts has, in its local budget, a uniform tax levy for vocational education. And these districts then contribute as the money is drawn on this tax levy toward the operating budget of their joint area vocational school. The school then applies to the vocational division of the state Department of Public Instruction for what we call, to use the general term, vocational reimbursement, which consists of state moneys appropriated by our legislature, and federal funds for vocational education. The reimbursement that we receive from the state Department of Public Instruction is to cover the operational costs for high school students. In addition to this, we contract with the Indiana Vocational-Technical College, which is a somewhat unique entity with no counterpart in Michigan. This college contracts to conduct training for out-of-school youth and adults, and we receive from it 100% monies, coming from the state monies that the state legislature appropriates for it, and from federal

funds for which it qualifies. There is also a nominal tuition for these out-of-school people which goes to help cover the cost of program operation.

Question:

Did you have a public vote on the issue to establish the school?

Answer:

No, in Indiana it isn't necessary to have a public referendum on a tax levy. The procedure there is that a school board works on a budget and decides that it will need a certain number of "cents per hundred dollars," or what you people call mills. This is then put in the budget and this budget is advertised legally in the paper. This legal advertisement states that the board of public education of a certain school district would, at its meeting on a certain date, at a certain time and place, consider and conduct a public hearing on the above-listed budget for the next year. After this meeting, the school board approves the budget, which is sent over to the court house and kept on file in the county assessor's office. In August, the County Tax Adjustment Board reviews this budget and makes any cuts it deems necessary, though such cuts may be contested. In September, the State Board of Tax Commissioners comes down and reviews all the budgets for the county and for the various taxing units within the county before giving their approval. Once they approve, the money is appropriated, the tax levy is made, and the money is then collected the next year. In Indiana, you see, you advertise before, then collect the tax money the year after. The real estate taxes I am paying this year are for calendar year 1966.

Question:

Do you expect an increase in enrollment?

Answer:

Last year we had 400 regular day students, 320 of whom were high school students and eighty out-of-school people. The high school students were on a shared-time basis, and the others full time. Next year we will have 500 high school students and 200 out-of-school people, or 700. This past year we had about 800 people in for evening programs, and next year we expect to have about 1,000.

Question:

How many students can you accommodate?

Answer:

We can accommodate 700 people in this building at any one time, so basically we are thinking about accommodating 900 high school students on a shared-time basis, or 450 in the morning and 450 in the afternoon, plus 300 full-time post high school students.

Question:

What is the cost of operation?

Answer:

One thousand dollars per student per year for full-time students, and five hundred dollars for the half-time student.

Question:

Have the participating schools maintained their offerings, or are they depending upon you to take over this responsibility?

Answer:

I'm glad you asked that question. The area vocational school has now made it possible for the local participating school districts to broaden, expand, and enrich their practical arts program. For example, North Vernon is building a new high school, in which it doesn't have to have extensive vocational facilities, and the logical course is for this and similar new schools to put in much broader industrial arts, home economics and art programs than they would have previously been able to do. And so this is doubly beneficial. Naturally we encourage this because the practical arts part of general education develops ability on the part of the student before vocational training.

Question:

What percentages of the participating high school students do you enroll?

Answer:

We have told our people all along that we will accommodate 25% of their eleventh and twelfth population, and we will do that. In some districts now, we have more than 25%; those districts to which we are especially accessible are sending as many as 33 or 35%, while some of the farther ones are sending only 14 or 15%. Conant tells us in his new report, "The Second Look," that he feels this should be up around 30 or 35%. He, too, is becoming very concerned about vocational education.

Question:

How about placement? -- How do the employers feel?

Answer:

Well, right now we are in the process of conducting a follow-up survey, and we hope to have the final results from this within the next few weeks. But in general, I can say that they are very, very enthusiastic. The people whom we talk to from the employing community say, "We'll take all you can send us."

Question:

Is the area vocational school causing the elimination of existing vocational programs?

Answer:

It has never been the intent of this school to replace existing programs, but rather to supplement and expand vocational offerings. Basically the decision of whether or not to maintain an existing program is up to the local school board. We still have operating a number of vo.-ag. programs in our schools, and we hope that those will be continued. But probably some of these existing programs will eventually be considered obsolete and be phased out.

Question:

Do any of your participating schools have machine shop?

Answer:

Not a vocational machine shop, but probably a machining area in a general industrial arts shop, that they haven't had before.

Question:

Is typing still taught at the home school?

Answer:

Yes, we are encouraging participating schools to keep typing. This first year, some schools sent us beginning typing students and we said, "Okay, we'll accommodate them." But we are strongly urging that beginning typing be offered at the home school so that we can take them further at the vocational center.

A VOCATIONAL EDUCATION PROGRAM SERVING A RURAL/URBAN AREA:
THE STEUBEN COUNTY, NEW YORK AREA VOCATIONAL EDUCATION PROGRAM

A First Report: Rudolph F. Schneider*

HISTORICAL OVERVIEW

Area vocational education in New York State can trace its roots to 1927 when the first Shared Service Board became a legal entity. This was based on the County Vocational Education and Extension Boards law. These boards were organized and controlled by the County Board of Supervisors. In 1948 the legislature established the Board of Cooperative Educational Services (BOCES). This is a policy-making board of citizens with the district superintendent of schools as executive officer. The geographical area covered by the activities of such a board include common, union-free central school districts as well as village and small city school districts. The district superintendent is a state employee/appointee with salary paid by the State of New York through the Board of Cooperative Educational Services. The current trend in New York State is for the geographical boundaries of a BOCES area to roughly coincide with those of the county. Exceptions are found only in the very populous counties. The Board of Cooperative Educational Services was created to provide educational services on a shared basis for smaller school districts that could not otherwise afford to provide these educational programs and services to their students. The Steuben County BOCES, for whom I am employed, was established in 1954 and initiated shared-services with eight shared-service teachers. This number has grown to 68 teachers at the present time. Originally, those employed were music, art, and guidance teachers. Over the years the services offered by BOCES to the component schools have expanded to include shared-school psychologists, nurses, guidance counselors, diver education teachers, centralized film library services, and centralized EDP type record keeping and accounting services.

When the President signed Public Law 88-210 in December, 1963, New York State designated the Board of Cooperative Educational Services as the ideal agency to develop and operate area vocational education programs. A few changes in the existing BOCES regulations were required; primarily, the elimination of a restriction limiting membership in BOCES to city school districts or village school districts with population of less than 10,000.

* From an address by Rudolph F. Schneider, Director of Vocational Education, Steuben County Board of Cooperative Educational Services, Bath, New York, delivered during the Workshop on the Shared-Time Concept for Area Vocational Education Programs, July 19, 1966.

Only New York State's "big six" cities are ineligible for BOCES membership. In these six, the city school board operates the area vocational program. That is, they are designated, for purposes of state law, as areas unto themselves. This is the general structure of area vocational programs throughout the state.

Area Vocational Education Program Developments, Steuben County

In 1962, the superintendent of schools in Hornell, New York, Steuben County's second largest city, recognizing the need for an area vocational education facility, called a meeting of fellow administrators from within a ten-mile radius to explore the possibilities of establishing such a program. The State Department of Education, Division of Industrial Education, was contacted and a survey was suggested to determine the need and interest of the area for vocational education. I structured the survey which, at State Department suggestion, was a county-wide study. By the fall of 1962 the State Education Department had suggested the inclusion of two neighboring counties and part of a third; and so the survey in final form included three and a half counties. The survey identified the needs of industry for trained people and the interest of both our in-school youth, out-of-school youth, and adults in participating in occupational educational programs. Though the need was established, implementation awaited the outcome of federal legislation. Passage of Public Law 88-210 in December of 1963 triggered the development of procedures for implementation of a program. In the spring of 1964, the District Superintendent of Schools of Steuben County was appointed chairman of the implementation committee. The State Department of Education agreed to reimburse the salary of an area director of education to be appointed to work with the District Superintendent and the implementation committee toward the establishment of area schools within the three and one-half county area.

Vocational Education Program Implementation

Service Areas. The first step toward implementation was a realignment of the geographical boundaries of the area involved. One county -- Allegany -- had been split in half for the survey. This would have led to an impossible situation for implementation purposes. It was combined with its other half and two additional counties, and an area director of vocational education was appointed for these three counties.

Guidelines. The State Department of Education, Division of Industrial Education, set up guidelines during '64-'65 for the training of the new area directors of vocational education and for the planning of the new area centers. Using Public Law 88-210 funds, area directors were brought from throughout the State to Oswego State College for a special six-month on-campus training program. Experts in school finance, law and building construction were guest speakers. The chiefs of each Bureau of Occupational Education of the State Education Department came, with their staffs, to explain the operations of their bureaus. Representatives of both the State and Federal Departments of Labor discussed the problems of their department and their direct relationship to occupational education. At the end of the

school phase, a two-month tour of vocational facilities throughout the United States was undertaken, giving the new area directors an opportunity to see occupational programs of all types, at all levels, in all manner of facilities and under a variety of methods of administrative control.

Criteria for Area Center Location

As part of the on-campus phase of the program, each area director was required to prepare an implementation proposal. This included a proposed location for each area center and the courses to be offered within each center, plus all supporting data. As a guideline, it was suggested that planning should be guided by the fact that no area center can be truly comprehensive in its coverage of all occupational areas unless it has a student potential of about 1,000. On this basis, it became evident that one county -- Steuben -- could support two area centers, another county -- Livingston -- could support one, and the other -- Schuyler, the smallest county in our state -- none. This did not place too great a hardship on Schuyler county since the only two central school districts within the county were within 20 miles of three proposed area vocational centers. This gave Schuyler the opportunity to select its service center or centers.

Some Characteristics of Steuben County

Steuben County has an area of approximately 2,000 square miles and is roughly rectangular, measuring 45 miles north-south and 40 miles east-west. There are 25,000 pupils in grades K-12; the largest school district has 9,000 pupils. The full value of real estate in this county is \$370,000,000. Our largest single industry, The Corning Glass Company, hires approximately 8,000 employees. The two cities in the county, Corning and Hornell, lie in opposite corners. The County Seat (Bath) is the largest village in the county, and is located close to the geographical center of the county. This is also the location of the headquarters for the County Board of Cooperative Educational Services. Because they were population centers and natural hubs for the county and state roads of the area, and because the influence of the area center would not be restricted to county lines, Hornell and Corning were proposed as sites for the area programs in Steuben County. The Corning Program, being within 20 miles of Watkins Glen and Montour Falls in Schuyler County, could provide programs for their county neighbors. Two school districts in Allegany County were within ten miles of Hornell and indicated an interest in participating in area programs offered in the Hornell area. In Livingston County, since there were no large population areas and a relatively even distribution of population, the approximate geographic center of the community was selected as a possible area vocational education center site. These proposals were reviewed by the State Department of Education, Division of Industrial Education. Bureau Chiefs were involved, at two separate meetings, one at the end of '64, and the other one early in '65. Final approval of the proposal came in the early spring of '65 and coincided closely with the termination of the training phase for the area directors.

Program Implementation

On termination of the travel phase of the training program, the immediate problem was that of implementing the approved proposals. The first step was obvious. Since neither Hornell nor Corning were, at that time, members of the Board of Cooperative Educational Services, they would not have been able to benefit from the liberal BOCES state reimbursement to component schools sharing a BOCES service. That is to say, their participation in the proposed area vocational center, operated by the Steuben County BOCES, would have been costly to them, and they would have had no voice in the operation of the program. Also, since the students from Hornell and Corning represented over half of the total available students in the county, it became apparent that if we were to have area vocational programs in Corning and/or Hornell, the participation of these two communities in the program was essential. There had never been a reason for city school districts to join BOCES. Until regulations were changed shortly after the passage of Public Law 88-210, the cities could not legally join. The cities had always been able to provide for themselves the services rural schools obtained on a shared basis through BOCES, but vocational education on a truly comprehensive basis was another matter. The cities tried to meet the need for this type of education by extending three-year programs. This they recognized as a substitute for trade vocational programs, possibly not an entirely satisfactory substitute, but at least one they could afford.

In New York State, BOCES law is written so that a decision to join BOCES is irrevocable; once in, one cannot later elect to resign. This necessitated analysis and evaluation on the part of the city boards of education and their administrations. Decisions had to be made about their existing occupationally oriented programs, the teachers now employed in these areas, and the ultimate use of the space vacated by these programs.

The BOCES law allows for no more than five members on the Board of Cooperative Educational Services. Since only one member is elected each year, the school districts would have to wait at least one to two years to be assured of representation on the board. Both city school boards were in agreement as to the need for an area vocational or occupational educational center. The financial advantages for joining BOCES were obvious. The problem of displaced programs and a voice in the operation presented the only major obstacles. To solve the second of the two problems, two members of the BOCES board offered to resign to make room for election to the Board of Representatives from both of the city boards of education. The problem of displaced programs was solved by the BOCES board agreeing to purchase any equipment from the laboratory, shops or classrooms of displaced courses and to hire, at the same rate, the teachers from the school district programs.

The courses transferred to BOCES area center control were primarily those of a specialized nature, requiring either large sums of money to equip or having limited student appeal. Programs of this sort being offered on a broader student base, through an area center program were assured of better utilization of the expensive equipment and more economical class size. Specifically, these were: Office and Distributive

Education, and Vocational Agriculture. Industrial Arts and General Shop, which historically and properly have been classified as part of General Education, were considered an absolute necessity as a pre-vocational, exploratory program. The Unit Shop programs are being evaluated and the curricula is being re-designed to provide additional occupational training experiences for the secondary programs involving college-bound students.

On the basis of these recommended solutions, the Board of Education of the City of Hornell, voted, on May 15, 1965, to apply for membership on the Steuben County Board of Cooperative Educational Services. On June 23, the Board of Education of the City of Corning passed a similar resolution. Until these decisions were made, no specific plans for the operation of an area center could progress in either location.

Money was allocated by the State Department of Education for equipment in the Hornell area program. This money had to be encumbered between the May 15 decision of the Hornell board and the end of the fiscal year on June 30. The Corning decision came too late for an allocation from fiscal year 1964-65, and the program in Corning had to be planned on a "hoped-for" allocation from 1965-1966 funds.

In the 105 days between the decision of the board at Hornell and the opening of school for the '65-'66 school year, approximately 16,000 square feet of space had to be rented, \$160,000. worth of equipment purchased, and eight faculty members hired. September 7, the Hornell Area Vocational Program opened its doors to 325 area students and has experienced a most successful year of operation.

In Corning, where less than 70 days were available to set up the area program, six courses were offered instead of eight. About 14,000 square feet of space was rented and \$100,000. worth of equipment was purchased or rented from suppliers who reluctantly agreed to await payment until federal funds became available. On September 8 the Corning Area Center opened its doors to 430 area vocational students and enjoyed an equally successful year.

VOCATIONAL PROGRAMS

At both centers we offer programs in the trades, business, home economics, and agricultural fields. The programs in the fields of business, home economics, and agriculture are generally two 45-minute periods in length. In the trade areas the courses are four 45-minute periods or three hours in length. Most of our programs are of two years duration, since it was felt that the objectives of the program were to provide a student with a salable job entry skill which could be achieved in that time space of instruction.

The average distance traveled by students outside of the city school district is approximately 17 miles; average traveling time is one-half hour each way. The center programs are scheduled from 9 a.m. until 12 noon, start again at 12:30 in the afternoon and extend until 3:30. Transportation arrangements were made so that the schools most distant from the

center provide buses which while transporting their students to the center, provide space to pick up students from other area schools on inbound trips. The students spend a half day at the area vocational center, taking occupational training courses and spend the other half day at their home school completing their academic requirements. The program next year will add seven new courses, an additional 18,000 square feet of rented space, seven additional faculty members, and serve approximately 1,100 students.

Administrative and Services

The vocational staff which will supervise this program consists of a director, a vocational curriculum coordinator, a guidance coordinator and assistant, and a principal at each of the centers. The curriculum coordinator's job is to work closely with the advisory committees set up for each course, both operating and proposed, and with their help, evaluate ongoing programs, suggest changes in curriculum, facilities, equipment, or faculty, and prepare trade analysis, study outline, equipment list, and facility recommendations for proposed programs. The guidance coordinator and his assistant are responsible for assisting the guidance counselors in each of the sending schools in identifying students who can best profit by the programs offered, assisting graduates in job placement, and preparing follow-up studies on graduates for purposes of program evaluation.

Problems of Implementation

The most essential ingredient in the success of a newly emerging area occupational program is the cooperation of the guidance counselors, administrators and boards of the sending schools. Guidance counselors are understandably reluctant to advise students to attend programs which exist only on paper. Administrators and Boards are understandably reluctant to allocate an item in the budget for vocational tuition to programs which are merely on paper. Because of this, some programs with which guidance counselors and administrators were relatively unfamiliar were poorly attended in their first year of operation. Here it requires an understanding Board of Cooperative Educational Services to recognize and appreciate misgivings of the local administrators and guidance people and a willingness to operate a program with very few students for the first year. May I say that, in every case where programs were poorly attended in the first year, for next year, pre-enrollment indicates classes will be filled.

Guidance counselors and potential students were brought in from the sending schools this year to tour our facility, and to see programs in operation. We feel this was a strong factor in allaying their fears and doubts.

It is our hope to eventually have our own buildings to house the program at both centers. Architects and site options have been obtained, both in Corning and in Hornell, toward this goal, but a basic defect in the New York State BOCES law impedes us from moving more rapidly toward actual construction. The present law forbids boards of Cooperative Educational Services from contracting to build facilities. For three

straight years, efforts on the part of the Department of Education and legislators interested in education, to sponsor new legislation which would correct the deficiencies of the old law, have met with defeat. In spite of these defeats, we in New York State still feel that our BOCES law provides us with an excellent structure for sponsoring and administering area vocational education programs.

A Second Report: Rudolph F. Schneider*

INTRODUCTORY REMARKS

First I would like to share with you a definition of a vocational director. It was given by our assistant commissioner, who is our director of vocational education for the State of New York. He says: "A well adjusted occupational director is a multi-faceted individual, whose intake of energy pills somehow overbalances his use of tranquilizers just enough to leave him sufficient energy to conduct an occasional staff meeting. He must have plenty of zeal. Now zeal is a certain nervous disorder that affects the young or the inexperienced. He must have wisdom; that is, common sense in a very uncommon degree. He must have sympathy, and this is what one girl gives another in exchange for the details. He must have a sense of humor and that's being able to laugh at your friend's misfortunes. He must be positive and that means when he is wrong he strives to be mistaken at the top of his voice and by all means nonchalant and that means the ability to look like an owl when he has behaved like an ass." How does this definition sound to you?

Next I would like to give you some more facts from our own experience concerning the employment of graduates from area vocational centers. We had 370 graduates of our program this year and placed 282 immediately and none in service stations. Our placement counselor's problem in placing the youngsters into jobs was not so much finding the job openings for the youngsters, but getting these youngsters to travel to the jobs. Some of our rural youngsters are willing to take the vocational education program but we still have a sociological problem of getting them off the farm after they have the training. We would have been able to place every single graduate if they had been willing to take jobs in Rochester, which is approximately 70 miles to the north of our county. Also I might add, that not all of those that were not placed in jobs were available for placement. We had 30 youngsters that went on to further education in the community colleges and the agriculture technical colleges and some to the four year colleges throughout our state and neighboring states.

Our Steuben County BOCES is somewhat analagous to your own intermediate district. Only we have the power to operate. BOCES means Board of Cooperative Educational Services. Long before vocational education came into the picture, we provided services and that is what we still do -- services -- to smaller home schools of the area that they could not afford to provide entirely by themselves. An example: a school might like a school nurse, but it is so small that it could not possibly support

* From an address by Rudolph F. Schneider, Director of Vocational Education, Steuben County Board of Cooperative Educational Services, Bath, New York, delivered during the Workshop on the Shared-Time Concept for Area Vocational Education Programs, July 17, 1967.

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the activities of a school nurse on a full time basis. They petition BOCES for one-third time of a school nurse. BOCES contacts the other 20 school districts and attempts to sell the other two-thirds time of a nurse. They might find another one willing to pick up a third, and another one possibly the final one-third and then BOCES would hire and pay the nurse and the home schools would pay BOCES a portion of the nurse's salary in relation to the amount of her time they use. This is an example of our itinerant service function: we provide the type of service (music teachers, school psychologists, and driver education teachers) -- any kind of educational service that is requested by the component schools. Most requests are for services in the specialized areas. Since this organization existed on a county wide basis, and was headed by the district superintendent of schools -- the equivalent to your intermediate superintendent -- it provided a ready instrument for the setting up of the vocational program. The state plan, approved by the Office of Education therefore called on the BOCES of the State of New York to be the organizing and operating group for the area vocational programs. The only exceptions to this role were the big six cities of the State of New York which were considered areas unto themselves.

I shall now turn to the main address. The topics for discussion were actually proposed by members of your group when they visited our center last spring. Let me list them:

1. Selection, guidance and placement of students
2. Curriculum development, that is, how courses are chosen, developed; and the function of the advisory committee in this process.
3. Prerequisites for entry into the programs offered
4. Administrative structure with emphasis on the decision making area
5. Financing

SELECTION, GUIDANCE AND PLACEMENT

The Steuben County BOCES has a two man guidance department headed by a guidance coordinator. He is assisted by an employment counselor. Both of these men have basic vocational guidance backgrounds and are permanently certified guidance counselors in the State of New York. The selection of students for the program we feel, and quite strongly so, is and must remain a home school function. There are over 22 home schools with over 6,000 youngsters in grades 9-12 scattered over an area larger than the State of Rhode Island, feeding students into our two area centers. Only the home school guidance counselors are close enough to these students to assist them in making an intelligent occupational choice.

Our guidance coordinator is available as a resource person for the home school guidance counselors, to assist the counselors and the students when assistance is requested. He organizes and operates in-service training clinics for the dissemination of information on vocational education programs offered by the centers, employment prospects of the graduates, and prerequisites for entrance to the program. In addition, the coordinator works closely with the instructors and principals in the two centers, in assisting the students in making an adequate occupational training adjustment.

The employment counselor is charged with the responsibility of placing the graduates and in conducting follow-up studies to evaluate the effectiveness of the existing programs. He is also a prime resource person when new courses are suggested for inclusion in the curriculum. Because of his close contacts with business and industry he can quickly evaluate their needs for trained personnel in new and emerging occupations.

CURRICULUM DEVELOPMENT

When a training need has been identified, the assistant director of our county program who is in charge of curriculum development is advised and an occupational analysis is made. From the resulting "laundry list" of skills and technical knowledge required, the assistant director organizes a teachable sequence, arriving at a course of study outline. At this point, an ad hoc advisory committee, made up of men and women knowledgeable in the occupation, are selected. Their first order of business is the review of the course of study outline and equipment list for the occupation prepared by the assistant director. After the advisory committee suggestions have been incorporated into the course of study outline, the guidance coordinator is advised of the proposed new program and given copies of the course of study outline and equipment lists. From this and subsequent information, on employment possibilities that he receives from his own assistant, the employment counselor, he prepares a release for the guidance counselors of the home schools.

During all phases of curriculum development every effort is made to design the course in such a way as to minimize prerequisites. Of the 20 occupational courses offered by the Hornell and Corning area centers only three have prerequisites. These are typing, algebra, and biology as prerequisites for clerical practice, technical electricity and electronics and practical nursing courses respectively.

ADMINISTRATIVE STRUCTURE

The Steuben County BOCES has the district superintendent of schools for Steuben County as its chief administrative officer. Under the superintendent is an assistant superintendent in charge of itinerant teacher services and a director of vocational education in charge of the occupational programs at the two area centers. The director has an assistant director and two guidance personnel as previously mentioned, as well as a vocational secretary all located at the main office in Bath, New York, which is close to the geographic center of the county.

The Hornell area center located in the northwest corner of the county has a principal to provide immediate supervision of the program and of its 21 faculty members and school secretary. The county's other occupational center is located in Corning, New York, which is the southeast corner of the county and also has its own principal along with 22 faculty members and a secretary. Both occupational centers are located in or near the two population centers of the county. Our county is in the foothills of the Allegheny Mountains and is roughly square in shape. A ridge of high

hills runs diagonally across the county from its northeast to southwest corner. This ridge effectively divides the county into the population centers indicated in its northwest or southeast corners. The centers are 45 miles apart and each serve 600 students at present. The Hornell center is spread out into seven rented facilities. But construction for a permanent campus to house the entire program is now under way with occupancy scheduled for September of 1968. In Corning a similar situation exists. There are six rented facilities and here, while a site has been purchased and architects selected, it is not expected that ground will be broken until the spring of 1968.

The principal in each center is responsible for the decision making involved in day to day operations of his center. Proposals for program changes or additions are passed on by the principal to the director. The director reacts to suggestions by his staff and makes decisions on county wide matters involving programs, facilities, faculty and public relations. When a problem arises requiring expenditures of large sums of money, or any monies not allocated in the budget, or involving the addition of new staff members, the director carries this request with his recommendation to the district superintendent for a decision. The district superintendent may feel that the item is of sufficient importance to require a decision by the board, in which case he may require the director to either prepare a written presentation for the board's consideration, or attend the board meeting and make the presentation in person. The director at all times is expected to keep the district superintendent up date on the operations at both centers.

FINANCING

A BOCES has no taxing power. And consequently must obtain all of its funds from its component school districts. These monies are obtained in the following manner. The administrative cost of BOCES operation which must not exceed 10 percent of the total BOCES budget, is charged to the component schools on the basis of their percentage of the total average weighted daily attendance for the entire county, so that regardless of whether or not a component school requires or receives any services from the board, they must pay their share of the administrative costs. If the component school wishes to obtain the part-time services of an itinerant teacher, as I mentioned before, they will pay BOCES for that portion of the teacher's time that they use and an equivalent portion of the teacher's travel costs.

In the case of the vocational program, a total vocational budget is arrived at by early spring and this figure is merely divided by the number of students registered for course work the following September. The figure obtained by this means is the student tuition fee charged at the occupational center. A component school is therefore required to pay this tuition fee for each student they send to the occupational center. As a component member of BOCES they will be reimbursed the following year from the state for some 75 to 80 percent of the tuition fees paid. I strongly feel that this is the most important feature in our shared service law in New York State, because it keeps the cost of vocational education to the individual home school to a very reasonable level that can be easily

handled within the local tax structure. Our tuition for next year will be \$675 per half day student. And this, by the way, is not an operating figure -- this is a gross figure. This includes the capital outlay of over \$90,000 for new programs planned for this September. You see we have no way of getting the capital any other way. We have no source of funds, other than our tuition fees -- so we run the entire program on this tuition.

In conclusion, I would like to admonish my fellow educators here in Michigan that your primary objective in planning occupational programs must always be to fulfill the needs of young men and women both in the secondary and post-secondary education situation. The "how" or the administrative structure is only important because it must be answered before the question "when". And "when" should have been yesterday. The needs are here now. We have students hungry for this kind of self-motivating goals-oriented education. We have business and industry asking for trained personnel. Let's get on with the job.

Questions and Answers

Question:

What is your tuition cost compared to the cost of educating a student in one of your local districts?

Answer:

Approximately \$100. per student more after the state refund.

Question:

You mentioned 75 or 80 percent as the operating cost reimbursed by the state. Does this include the 75 or 80 percent of the \$675 you will be levying next year?

Answer:

Yes, the participating schools should receive a refund of approximately \$500 on each \$675 tuition paid.

Question:

In other words then, the state does come up with a portion of the capital outlay in this way.

Answer:

Oh, yes, in this way. This is the only way we get the capital outlay. Now may I say this in regard to capital outlay. New York State's Department of Education set up a peculiar method of doling out the federal funds. Apparently the state is anxious to see many of these programs started as

quickly as possible. And so they are taking the federal money and are spreading it just as thin as they can so that everybody may receive a little "seed" money. Consequently our two centers are cut off from any further 88-210 funds. We are being told to wait till all of the centers have been started throughout the state -- that we can expect some money out of the second round. Fortunately, I come from a county where we have marvelous cooperation, with the people and with the school administrators and everyone. They are a wonderful group to work with. And so they have been willing to pick up subsequent equipment costs in tuition fees even though the initial promises that were made by our State Department were not kept. We are now going ahead with the program using the gross figure in our budget and we are going to handle it ourselves. Any additional funds that come through the state from 88-210 we will consider frosting on the cake.

Question:

Do your constituent school districts receive any form of general state aid? And if they send a student to you for a half day, do they lose a portion of that state aid?

Answer:

They have to or otherwise they have double aid on the same student. What it amounts to is this. They register the student on a half day basis. On the basis of their daily average attendance, the vocational student is considered as being in attendance half a day at the home school. To this extent they do lose half of their general aid but they pick up a very sizable portion of assistance from the reimbursement. Actually, the thing balances out to the point where this year they figured that some of the schools spent between 20 and 100 dollars less to send someone to the vocational program than to provide full day educational programs for them at the home school.

Question:

I understand that you have, in many areas in New York, a very close working relationship between the community colleges, technical institutions, and area vocational schools at the secondary level. This is not always the case.

Answer:

Yes, one of the very first things we did when we got started was to start a dialogue with our two local colleges. One is the Alfred Agricultural and Technical College operated by the state. It's a state agricultural and technical two year college. This is about five miles from Hornell center; and right in the city of Corning, where our other center is located, we have the Corning Community College. We had dialogues with these people immediately and we have had excellent results.

The very first thing that we agreed upon is that a youngster that has gained admission into the post-secondary institutions should not be made to repeat courses similar to the ones he had taken in the area center, and

that there was no reason why some arrangement couldn't be worked out for vocational course work where advanced standings could be offered similar to that which is done in academic courses on a four year college level. This is what we have been working toward. We have several arrangements that we are working on. In the vocational area we have a state regional comprehensive examination. We have used these and sent them to the community colleges involved. They have given these examinations to the department heads for evaluation to determine what courses the student who could pass them could be given credit for in their technical departments. In other situations, we have worked on the basis of the departments themselves -- setting up qualifying examinations that the student would take. Some of the colleges are actually using their final examination in one of their courses and if our student can pass their final, he receives credit for the course. In many cases the credit is conditional. In other words if the college accepts the state regions comprehensive examination, for instance, this credit is a tentative credit conditional on the student passing the next course in the sequence. If they give the student conditional credit for Drafting 202 he does not actually get the credit for 202 until he has passed Drafting 302. These are some of the things that we have worked on. We find that there are no problems here -- no problems when information is made available back and forth.

The problems that arise between secondary and post-secondary educators I think are primarily through ignorance -- ignorance on the part of the secondary educators of the true nature and scope of the post-secondary program. And ignorance on the part of the post-secondary educators of the true nature and scope of our secondary programs. As soon as we get together and sit down and talk, and as soon as we visit one another's institutions, and our instructors get together and start comparing notes, all these problems begin to vanish. We are all educators, and we all have the same things in common: The best interests of the students.

Question:

As you can appreciate after hearing the session that preceded this, in Michigan we have virtually no state support for vocational education per se. We are caught in an untentable position here. We know that if vocational education programs are going to have the thrust and we are going to have the state wide network area vocational education centers, we have got to have state support. Now New York State has categorically aid to the extent of 75 or 80 percent.

Answer:

Wait a minute, you better watch saying categorical aid. Our aid is 75 to 80 percent reimbursement on any and all BOCES programs, not just the vocational programs. In other words schools get that kind of aid on what they pay for the administrative costs, they get that kind of aid back for what they pay for the itinerant teachers -- now you see we run programs in special education -- because many of our schools are too small to provide this.

Question:

Ok, I shall rephrase this. In effect your vocational education programs are supported to the tune of 75 or 80 percent with state money.

Answer:

That is correct.

Question:

Now, we know this is the direction we have to go in Michigan. My question to you would be, how did this come about in New York state. Very briefly if you could give us some background on that.

Answer:

Because we backed into categorical aid if you want to see it that way. In the first place, 75 or 80 percent reimbursement of BOCES programs was already on the books as part of the BOCES law and it was being provided for all types of services that BOCES provided to these home schools. So, therefore, this could be for English teachers, math teachers, for special services such as school nurses, in other words originally this law was not in any way a categorical law. In New York state, our governor is very much against money for categorical purposes. And believe me we would have a hell of a time trying to sell an aid law on a categorical basis. Might I suggest that you think in terms of broadening the scope of those areas that would be covered under this type of an aid blanket. You will bring more helpers onto your side, you will have a bigger team and you will get away from the possibility of a categorical label. Now there is no question that two years ago the amount of BOCES aid money that was refunded that had been involved in vocational education represented less than 10 percent of the BOCES state budget for vocational reimbursement will be in the neighborhood of 72 percent and the budget is three times larger than it was three years ago. So now it's pretty much become categorical aid.

Question:

You stay away from that label but in effect you have the same end results?

Answer:

We have the benefit and fewer problems selling it.

Question:

In the State of New York then, the real rebellion might come at such a time when the legislature says that overall you are spending too much money for education in general, and they would just cut those percentages. Is this the way they appropriate money then on the basis of the percentage of reimbursement to the school districts?

Answer:

The amount of money that we spend in the State of New York for education is a fantastic figure. And our legislature has been pretty well committed to the fact that this is a good expenditure. The whole problem has been over the years -- the same problem that you have here. The legislators have been in favor of additional assistance in all areas of education; that is, from the kindergarten to the colleges. But the problem has always been money. Now we have had our payroll deduction type of income tax ever since Rocky's first term, and I think that this was a very good move. Now this figure has crept up and still creeps up, though you really do not notice it too badly. But even so, there has always been other devices that have had to come into the picture: we have the state sales tax, and this year we have gone to the lottery. They are continually exploring all avenues of raising additional funds and in almost every case, the way they sell the new method of taxation is to say that a goodly portion of it would be going to education and education needs this money. Our legislators have gone out and they have worked at finding additional means of raising money in order to support the programs that we now have.

Question:

Has this been general aid to education, all along the line?

Answer

Yes, it has.

Question:

Why do you provide for just one-half of the student's education, the vocational half. Wouldn't it be more sensible and economical to keep the student at the center the full day and provide for his academic work at the center as well?

Answer:

This was done because we want to continue to be a service and not a school. When you become a school then you become an additional entity in the community, and then you really raise a certain amount of objection from the small schools that begin to feel that you are planning to strip them of the few students they have and threaten their existence. But when you talk entirely in terms of providing a service, that these are the students of the home school -- not of the center; when you talk of amplifying the opportunity at the home school level you can point out to the home school people that you are making it possible for them to have additional space within the building that they already have so that they do not have to think in terms of immediate building programs to take care of their expanding population. The argument for throwing the small central school out of existence goes out the window when a student from these schools has available to him every opportunity for education through the use of the itinerant

teachers on BOCES, or through the use of the BOCES vocational program. They have the advantage of any of the services available to the bigger school districts. Actually because of this we have no problems in public relations with our small schools. They feel we are their savior, not the man with the hatchet. And we want to keep it that way. We make it a point that whenever pictures of students at the center appear in the papers -- and we work hard in publicity -- these pictures list the students' home schools. We play down the center and play up the role of the home school in all of this. Thank you.

AN AREA VOCATIONAL EDUCATION PROGRAM SERVING A METROPOLITAN AREA:
THE ST. LOUIS COUNTY, MISSOURI AREA VOCATIONAL PROGRAM

Lewis Clark*

INTRODUCTION

I appreciate the opportunity to spend some time with new faces, to learn and understand different experiences. The time is short -- I'm sorry because the message is long and I'll not have the opportunity to present it in its fullest context.

I became excited when I was introduced to the situation you know as "shared-time" because this recalled some experiences I've had in the State of Missouri. When you discuss "shared-time", I immediately think of the relationship between public and parochial schools, because this is the connotation of shared-time in my state, and we yet are having a problem because of this terminology.

EDUCATION IN ST. LOUIS COUNTY

I want to give you a capsule description of the educational system of St. Louis County, so that you will have an idea of the scope of problems we face in that area. We have approximately 150,000 students. Over-night we may have added a thousand. We have approximately 40,000 high school students going on to higher education. The remaining 110,000 students represent our most basic problem. We have 25 districts in this county. One of the school districts is larger than the entire city of St. Louis. This district has over 25,000 students in it. We have 27 high schools, 45 junior high schools and more than 7,800 teachers in St. Louis County. We have many people to serve.

In 1957-58, legislation was enacted to form a special district in St. Louis to cover the whole of St. Louis County -- all 25 districts. We were to provide in this special district, special education for the physically and mentally handicapped students. At the present time we have five schools providing this training, plus classrooms in almost all the districts. This means approximately 150 classrooms in the various schools, with a staff of 309 persons.

The county is extremely large. We surround the city of St. Louis, which also creates problems. We have a kind of bedroom community. Many of the one million people who live in this area work in other locations in the metropolitan area.

* From an address delivered by Mr. Lewis Clark, Acting Director, St. Louis County Area Vocational Education Program, at the Workshop on Shared-Time Area Vocational Education Programs, July 19, 1966.

STATUS OF VOCATIONAL EDUCATION

We have many education problems. One is the stigma attached to vocational education -- definitely so in St. Louis County. It is not a recent development. It was here when I visited St. Louis County as a supervisor for state-wide testing. But it was as the director of vocational education in the county that I was accused of working with juvenile delinquents. And I'm sure the person didn't understand when I suggested that these so-called delinquents were enrolled in the many schools in the county in regular programs.

The recent history of vocational education in St. Louis County makes exciting reading. At the end of World War II in 1945, we had a vocational school which was initially a war-training school. Our greatest problem was finance. There was no tax base for the operation of the school. We have what we call a "unified" budget in St. Louis County with all cooperating districts involved and as a county group, support for vocational education was limited to only \$12,000 yearly for operation. At that time, the major portion of our financial support came from tuition from our local schools, since they operated as the sending schools. Added to this were state and federal funds we could secure. With the advent of the NDEA program in 1958, we started moving in the right direction. We were then able to get into technical programs with outside financing on a 50% matching basis. This is when we developed our technical programs -- tool design, electronics, and electronic data processing. And at this point we received public acceptance of the program in vocational education.

A change in name also aided in removing the stigma from the vocational education program. We had been the "St. Louis County Vocational School", and had been in operation as such since 1945. When we changed the name to St. Louis County Technical School, we were publicly presumed to be "legitimate", although we were the same school with the same operating personnel. It is a sad commentary when the "name is the game" in education.

The Title VIII Program, of course, gave us impetus with money. We have an old building. In the spring of 1967, we will have over 400 students in a building designed as a private country day school to accommodate approximately 250. One reason why we are providing a "good" educational program is because we are eliminating many of the students who need the most help, especially remedial work. It does little good to accept a student into a machine shop program where he must work with tolerances of 1/1000 and 1/10,000 when he can't even read the 1/16" scale on a standard rule. At this time, we are turning away two for every one that makes application. Sub-standard preparation and limited facilities are to blame. And too, we are looked upon as a dumping ground by many of the participating schools.

PUBLIC RELATIONS

Publicity is invaluable in establishing and operating a shared-time facility. We were the subjects of a half-hour documentary film that was presented on our station, KSD-TV. It was so well done it was nominated for an "Emmy" award. The St. Louis paper, the Post Dispatch, carried the advertising of the showing of the film at no cost to us. The listening-reading area of the Post Dispatch and the KSD-TV station includes something like three million people.

This publicity is what started legislative activity -- needed legislation because we were a special district with taxing power. We were successful in securing the necessary legislation for operation. This legislation has permitted us to provide revenue for operation and for a building program. We'll have 16 programs. Some innovations have been designed into the building which will contain 126,000 square feet of space when completed. Initially, cost estimates to erect the necessary building amounted to \$16. per square foot. We will be nearer \$22. per square foot when completed. The building is scheduled for occupancy in the fall of 1967. A word to the wise here: if you are contemplating such a program, determine your machine requirements and order NOW! Particularly, equipment for electronics and electronic data processing. We have not only been delayed, but we have had to substitute from our original determinations.

FUTURE EXPANSION

In December we will initiate bids for a North County School, which, because of limitations on money will be held to 100,000 square feet. But as soon as it's finished, now scheduled for 1968, we will initiate another building program to add approximately 50,000 square feet to it. We had hoped for three schools. The basis of our building program is the availability of state and federal funds. In Missouri, we do not finance vocational education -- adequately finance, that is. Last year, the financial support was something like \$600,000. In terms of the type of programs, and the equipment needed, this is a pittance. There is hope, however. The Governor has asked the Attorney General to appoint a committee to study the needs for vocational education -- the needs for funds to operate the schools.

VOCATIONAL TRAINING IN THE TOTAL EDUCATION PROGRAM

Our problems are many, but solutions will come from working together. If I have a message, it is that the secondary, vocational and junior college educators need to consistently and constantly work together for the benefit of the students. The student should have the opportunity to develop as much as his abilities will warrant. No door should be closed to him. Of real concern is the provision of the Vocational Act of 1963 which in effect delimits training, so that we concentrate too much on full time vocational training at the expense of regular education -- and the insistence is that a decision for full time vocational training must be made at the age of 16 years. What is needed is "open-door" policy, so that the student can be accepted for what he is and where he is, and can, with aid of the various programs, proceed from that point. Only then will we be providing real education programs.

A REPORT ON SELECTED AREA PROGRAMS IN OHIO

William Mellon and O. Donald Meaders*

Traditional socio-economic, political and geographic circumstances have long served to hinder necessary change in America's system of public education. The burgeoning technological development in the contemporary society dictates the dire need for immediate adjustment in educational programs, particularly in the secondary schools, in order that the vast majority of school-age youth are adequately provided with training for at least minimal job-entry skills upon completion of their secondary school programs. The salient problem involved is to overcome these traditional expressions which hinder necessary change by devising a means whereby the fullest utilization of existing facilities, instructional media and staffs, and financial support will be applied to the vital task of educating youth for the world of work. When such existing facilities are inadequate, it is inherent in the concern for vocational training that facilities be constructed and financial support provided so that none are deprived of the educational opportunity to prepare for full and efficient social competency.

The shared-time concept, featuring a cooperative use of vocational facilities and staffs among and/or between schools and districts through dual enrollment of students, is one means of necessary program adjustment. The shared-time program is sufficiently flexible to find expression in unique educational circumstances, and can be implemented in metropolitan, urban, rural/urban and rural environments. This flexibility is manifested in the utilization of facilities and staffs, cooperative financial structures, program scheduling, transportation, curricula programs, community involvement, administrative structures and procedures, et. al.

Examples of the flexible nature of the shared-time program concept are found in the educational program structures in the Cleveland (Ohio) Public Schools, the Lake County (Ohio) Joint Vocational School and the Penta-County (Ohio) Vocational School and Technical College, Rossford.

The central feature of the shared-time concept, as interpreted in each of these three educational systems, is the removal of the traditional barriers to complete and efficient educational programming. Inherent in this feature is the provision for adequate training to the fullest of the capabilities and aspirations of the student without regard to the student's geographical location.

THE CLEVELAND PUBLIC SCHOOLS PROGRAM

A cursory review of the Cleveland program, past and present, serves to illustrate this point. In the years prior to 1965, the Cleveland system

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provided vocational and technical training in two trade schools only, one for boys and one for girls. Because of the limited facilities for such training, only a relatively few students were provided the educational opportunity of preparing for the world of work, and even these few on a highly selective basis. And those who were finally accepted into training at either of the two schools were often confronted with travel distance and time difficulties, disassociation with residence neighborhoods and additional financial burdens.

Monies made available through the provisions of the Vocational Education Act of 1963 enabled the Cleveland system to designate and establish comprehensive schools strategically located in the metropolitan area so that maximal programs in terms of facilities and equipment could be established. Accordingly, the seventeen senior high schools were designated as comprehensive schools; skill centers were established in each school so that a specialized program could be offered to the maximum number of students.

Duplication of program and facilities was required in some particular instances in view of the sprawling metropolitan demography represented. However a survey of area manpower training needs and student aspirations enabled the implementation of the fullest spectrum of programs possible. Thus, if a student wished to pursue a program of vocational training for which he was qualified, he immediately was presented with two basic alternatives. He could pursue the program as offered in his "home" school, or he could enroll for that particular program in the school where it was offered. The latter alternative enables the student to share his enrollment in another school, or, if necessary, even to transfer to that school as a full time student. In most instances, transfer is effected so that all academic and related courses in the total program can be taken at the vocational training site. The alternatives offered are examples of the attempt of the Cleveland system to meet the needs of the youth.

Programs established in the skill centers of the comprehensive high schools are continuously evaluated for purposes of up-grading instructional levels, meeting the manpower requirements in the patron community and meeting the developmental needs of the students. As new manpower demands are identified, courses and programs are initiated or modified (such as the inception of Horticulture, Data Processing, etc.). When manpower surveys indicate a deteriorating need (Foundry), programs are eliminated.

In the instance of the central city as manifested by metropolitan Cleveland, many problems remain. Inadequate structures, in terms of size and location, remain as serious inhibiting factors to adequate program development; transfer of students involves disruption and discontinuity of neighborhood identification and association; travel time and distance for these students in shared-time programs is, in many instances, prohibitive.

And, too, the socio-cultural levels represented by the central city student requires a diversity of program level offerings within a discipline not easily sustained financially. Yet, the comprehensive skill center programs and the shared-time program innovations appear to be at least a partial answer to the immediate problem of vocational and technical training, and represent an honest effort by the community to meet the urgent needs of its youth.

THE LAKE COUNTY VOCATIONAL SCHOOL PROGRAM

Another interpretation of the shared-time program concept is represented by the Lake County (Ohio) Joint Vocational School at Painesville. The Lake County JVS Program features an area vocational school which serves as the department of vocational education for each of the participating schools, currently numbering four. None of the participating schools has a sufficiently large enrollment nor adequate financial bases for establishing local vocational education programs.

Organized as a county-wide area facility, the Lake County JVS thus provides the vocational training needs of the youth of the participating schools through a centrally organized and administered program. Some difficulties, none of them insurmountable, exist in the program. Variance in school schedules and coordination of guidance and counseling services present administrative problems. Travel time and distance on the part of the students is, as in most regular programs, a difficulty. However, the on-going program, when operating at maximum capacity, will provide nearly 500 Lake County youth with adequate preparation for the world of work that would otherwise have been denied them.

THE PENTA-COUNTY VOCATIONAL SCHOOL AND TECHNICAL COLLEGE

One of the most exciting interpretations of the shared-time program concept is found in the Penta-County school at Perrysburg, Ohio. Where the Lake County JVS might have erred in delimiting its scope of operation to a single county, the Penta-County JVS is organized involving 13 school districts from five counties, comprising an area of approximately 1400 square miles.

The Penta-County Vocational School and Technical College, by virtue of its size and location, offers three distinct programs -- secondary vocational, post-secondary technical and evening adult programs. Currently, the program utilizes facilities and staff for 16 hours daily and is in operation seven days weekly. A unique feature of the school is found in the location of a representative from the State of Ohio Office of Rehabilitation, so that special needs of persons in rehabilitation training can be met and coordinated with the on-going programs of the school.

The school features a close harmony with the needs of the students in relationship with the manpower needs of the area served. Programs are offered that could not be sustained at the participating schools. Curriculum structure features the logical progression necessary in the development of employable skills. Academic and related courses are offered at the installation for those who would otherwise have to spend excessive commuting time. A continuing survey of area needs is conducted so that the curriculum flexibility will be maintained to meet the demands of the students and of the patron communities.

The problems inherent in an educational operation of the size and scope of the Penta-County program are more obvious than those in the smaller vocational schools, and perhaps also in comparison with central city programs.

The vast area served makes continued and adequate communication with participating communities a major concern. For those who wish to continue in the shared-time programs, travel time and distance are greatly exaggerated. Remoteness of the installation also contributes markedly to the discontinuity and disruption of the neighborhood identification and association. However, the influence of the metropolitan Toledo area, as well as the adjunct areas thereto dictates the scope of the total program. It should be noted that the school is located on the site of the former U.S. Army Ordnance Depot which has since been phased out of operation and is now an industrial park. More than one of the industries now located in the park have revealed that a major consideration for their location there was the existence of the school on the site.

It is interesting to note that the problems inherent in the shared-time program concept most often result from traditional interpretations and differ only in scope according to the environmental demands found in the three programs surveyed. Communication, transportation, finance, flexibility of curriculum, needs of students and of the patron communities, administrative structures and procedures, et. al., have long been the areas of concern of public education. There is no reason to expect that such concerns would be obviated through the shared-time program implementation. Nor is there reason to expect such concerns to defer continuing implementation of such programs so vitally needed. No problem identified in these three interpretations of the shared-time program concept defies solution. The inception of the concept itself in these three instances is, en toto, an attempt to solve an educational problem.

SUMMARY*

Some of the practices used in many schools to operate their area vocational education program on the shared-time concept have been reported in the preceding pages. The practices were identified through (a) a questionnaire responded to by seventy schools which serve as receiving centers for area vocational education programs, (b) reports from directors of three area vocational education programs, and (c) personal on-site observations in some area programs.

The educator who is interested in considering the shared-time concept as a means for expanding and improving the educational program available to the youth in a given area, may gain meaningful insights to the operational procedures through the review of the preceding pages, and the ideas expressed in the other publications in this series.

* Dr. O. Donald Meaders, Associate Professor and Project Leader for Shared-Time Concept Project